

WINTER

TYLER JUNIOR COLLEGE

TYLER, TEXAS



ANNUAL CATALOGUE 1971-1972

ANNOUNCEMENT OF COURSES 1972-1973

TYLER
JUNIOR
COLLEGE

EAST FIFTH STREET

+ +

ANNUAL CATALOGUE

1971-1972

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TYLER, TEXAS

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GENERAL COLLEGE CALENDAR — 1971-1972

ADVANCE REGISTRATION

The administrative offices are open throughout the summer for advance registration. Thorough and leisurely counseling is available on degree plans, technical courses and vocations. Students may arrange appointments from 8 a.m. until 3 p.m. Mondays through Fridays.

FALL SEMESTER

Advance Registration	June 7 - August 20
Evening School Registration	August 18 and 19
General Faculty Meetings	August 21 and 23
Day School Registration	August 24, 25, 26
Last day to register without paying late fee	August 26
First day of classes	August 30
Last day to change schedule	September 3
Labor Day - Holiday	September 6
Twelfth Class Day	September 14
Last day to drop a course with a grade of X	October 22
Mid-semester grades due	October 22
Advance Registration for spring semester	October 25
Thanksgiving holidays	November 25 and 26
Beginning of final exams	December 15
Last day of Fall semester	December 22

SPRING SEMESTER

Evening School Registration	January 6 and 7
General Faculty meeting	January 10
Day School Registration	January 11, 12, 13
Last day to register without paying late fee	January 13
First day of classes	January 17
Last day to change schedules	January 21
Twelfth Class Day	February 1
Last day to drop a course with a grade of X	March 6
Mid-semester grades due	March 6
Spring holidays (inclusive)	March 27 - April 3
Beginning of final exams	May 10
Last day of spring semester	May 19
Commencement	May 19

SUMMER SESSION

Registration for First Term	May 29
Classes Begin	May 30
First Term Ends	July 7
Registration for Second Term	July 10
Classes Begin	July 11
Second Term Ends	August 18

GENERAL COLLEGE CALENDAR — 1972 - 1973

FALL SEMESTER

1972

Advance Registration	June 5 - August 18
Evening School Registration	August 16 and 17
General Faculty Meetings	August 19 and 21
Day School Registration	August 22, 23, 24
Last day to register without paying late fee	August 24
First day of classes	August 28
Last day to change schedule	September 1
Labor Day - Holiday	September 4
Twelfth Class Day	September 12
Last day to drop a course with a grade of X	October 20
Mid-semester grades due	October 20
Advance Registration for spring semester	October 23
Thanksgiving holidays	November 23 and 24
Beginning of final exams	December 14
Last day of Fall semester	December 21

SPRING SEMESTER

1973

Evening School Registration	January 4 and 5
General Faculty meeting	January 8
Day School Registration	January 9, 10, 11
Last day to register without paying late fee	January 11
First day of classes	January 15
Last day to change schedules	January 19
Twelfth Class Day	January 30
Last day to drop a course with a grade of X	March 4
Mid-semester grades due	March 4
Spring holidays (inclusive)	April 16 - 23
Beginning of final exams	May 9
Last day of spring semester	May 18
Commencement	May 18

SUMMER SESSION

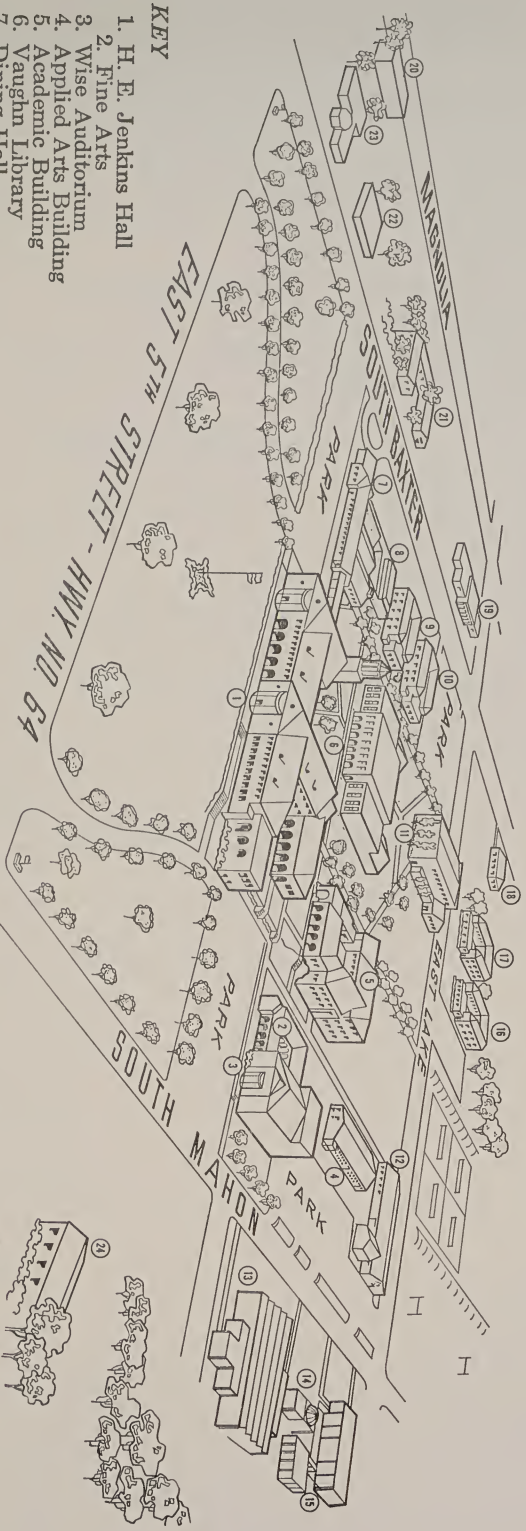
1973

Registration for First Term	May 28
Classes Begin	May 29
First Term Ends	July 6
Registration for Second Term	July 9
Classes Begin	July 10
Second Term Ends	August 17

- KEY**
1. H. E. Jenkins Hall
 2. Fine Arts
 3. Wise Auditorium
 4. Applied Arts Building
 5. Academic Building
 6. Vaughn Library
 7. Dining Hall
 8. Student Center
 9. Vaughn Hall
 10. Holley Hall
 11. Gentry Gymnasium
 12. East Hall
 13. Gymnasium
 14. Hudnall Planetarium
 15. George W. Pirtle Technology Center

16. Center Hall
17. West Hall
18. Tax Office
19. Claridge Hall
20. Bateman Hall
21. Baptist Bible Chair
22. Church of Christ Bible Chair
23. Methodist Bible Chair
24. Presbyterian Bible Chair

**CAMPUS OF
TYLER JUNIOR COLLEGE**



Board of Trustees

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Dr. Eugene M. Allen	A. D. Clark, Jr.	
Homer Eikner	Jack W. Flock	Harry Loftis
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* * * *

The Administrative Council

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I. L. Friedman, B.S.....Dean of Instruction
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Eva Saunders, M.A.....Dean of Women
Edwin Brogdon, M.B.A.....Dean of the Evening Division
Kenneth Lewis, M.S.....Registrar
Forest Griffin, M.S.....Director, Technology Division

* * * *

FACULTY

Harry E. Jenkins.....President
B.S., Kansas State College; M.A., The University of Missouri;
Ph.D., The University of Texas
Edward M. Potter.....Vice-President, Academic and General
B.A., M.A., The University of Texas; LL.D., East Texas Baptist College
Richard Barrett.....Vice-President, Fiscal and General
B.B.A., East Texas State University; M.B.A., Texas A&M University

FACULTY (Continued)

- Johnny Abbey Business
B.B.A., M.B.A., The University of Texas
- Andres R. Acosta Spanish, French
Ph.D., The University of Havana, Cuba
- Jacqueline Adams Art
B.A., Centenary College; M.A., Stephen F. Austin State University
- Thomas W. Akins English
B.A., Texas A&M University; M.A., Southern Methodist University
- Bill N. Allan Bible
Director, Church of Christ Bible Chair
B.S., Abilene Christian College; M.Ed., California State Polytechnic
- Donald Anderson Bible
B.A., Northwestern Schools; M.T., Dallas Theological Seminary
- Billy Wayne Andrews Physical Education—Football Coach
B.A., Trinity University
- R. S. Austin Education
B.S., M.S., Prairie View A. & M. College
- Albert Baade Electronic Data Processing
B.A., Baylor University
- Ray Bagwell Government
B.A., Baylor University; M.Ed., East Texas State University
- Robert Ballard Government, History
B.A., Culver-Stockton College; M.S., East Texas State University
- Robert M. Bandy Business
B.A., The University of Texas; J.D., Southern Methodist University
- James F. Barnes Government, Economics
B.A., Mississippi College; M.A., The University of Mississippi
- Lethan A. Barnes English
B.S., M.A., Texas A&M University
- Wanda Barton Spanish
B.A., M.A., Stephen F. Austin State University
- Harvey O. Beckendorf Bible
Director, Methodist Bible Chair
B.S., The University of Houston; B.D., Perkins School of Theology
- Charles D. Bennett Business Education
B.S., Southeastern State College, Okla.; M.S., Oklahoma State University
- Jack W. Betts Engineering Drawing, Drafting
B.S., M.Ed., East Texas State University

FACULTY (Continued)

Sue Betts.....	Library Assistant
B.S., M.Ed., East Texas State University	
Lawrence Birdsong, Jr.....	Speech, Drama
B.A., Baylor University; M.A., East Texas State University	
Gene Blakely.....	Business Manager
B.B.A., North Texas State University	
Justus Bonn.....	Voice
Opera School of Amsterdam Conservatory	
Howard E. Branum.....	Physics
B.S., M.Ed., Stephen F. Austin State University	
Edwin S. Brogdon.....	Dean of the Evening Division, Distributive Education
B.B.A., M.B.A., East Texas State University	
David E. Bronaugh.....	Air Conditioning
B.S., The University of Texas; M.S., Southern Methodist University	
Marilyn Brosang.....	Music
B.A., Mercyhurst College	
Jean Browne.....	Chairman, Department of Speech and Drama
B.A., Mt. Holyoke College; B.A., Carnegie Institute of Technology; M.F.A., The University of Texas; Ph.D., State University of Iowa	
Elizabeth Bryarly.....	Chairman, Department of English
B.A., Baylor University; M.A., The University of Texas	
Julius Buchanan.....	Petroleum Technology
B.S., The University of Texas; M.S., East Texas State University	
Don S. Burket.....	Government
B.A., M.A., Austin College	
John Maxwell Burket.....	Geology
B.A., M.S., Baylor University	
Mary Burton.....	English
B.A., M.A., Sam Houston State University	
Noamie Ruth Byrum.....	English
B.A., M.A., Stephen F. Austin State University	
Merrill Cantrell.....	Electronic Data Processing
A.A., Tyler Junior College	
Lorace E. Catterson.....	Economics
B.S., Northwest Missouri State College; M.Ph., The University of Wisconsin	
Charles J. Cavanaugh.....	Chairman, Department of Art
B.F.A., Louisiana College; M.A., North Texas State University	

FACULTY (Continued)

Harman L. Chappell.....	Electronics
B.S., Texas A&M University	
Pamela Clayton	Business
B.S., Stephen F. Austin State University	
Randall Clayton.....	Business
B.B.A., East Texas State University	
Louise Clinkscales.....	Chairman, Department of Business Education and Secretarial Training
B.B.A., Baylor University; M.B.A., East Texas State University	
Milford T. Collins.....	History
B.A., East Texas Baptist College; M.A., Stephen F. Austin State University	
Marjorie Coulter.....	Physical Education
B.S., Baker University	
Edmund R. Crisp.....	Engineering Drawing
B.S., Texas A&M University	
Felder Cullum.....	Chairman, Behavioral Science Department, Psychology
B.S., University of Maryland; M.Ed., Ed.D., North Texas State University	
Charles Cunningham.....	Radio-Television
FCC Licensed Radio-Television Engineer	
George Michael Cunningham.....	Chemistry
B.A., Howard Payne College; M.S., West Texas State University	
Charles Danheim.....	Bible
B.S., Stephen F. Austin State University; B.D., Southern Methodist University	
Marvin P. Davis.....	Chairman, Department of Mathematics
B.S., Lamar State College of Technology; M.A., Louisiana State University	
Fred T. Debenport.....	Electronics
B.S., University of Houston	
David Demic	Mathematics
B.A., Texas Technological College; M.A., The University of Texas	
Con Devers.....	History
B.S., M.Ed., Stephen F. Austin State University	
Billy Jack Doggett.....	Mathematics
B.S., M.Ed., Stephen F. Austin State University	
Clarence Durham	Engineering
B.S., Georgia School of Technology	
Evelyn Marie Dusek.....	Home Economics
B.S., Sam Houston State University	

FACULTY (Continued)

Billie Carol Edwards.....	Art
B.A., M.Ed., Northwestern State College; M.A., Stephen F. Austin State University	
Elmer G. Ellis.....	Business
B.S., M.B.A., East Texas State University	
Linda Ellis.....	English
B.A., M.A., East Texas State University	
Lena Exum.....	English
B.A., Mississippi State College for Women; M.A., University of New Mexico	
Sara Bess Faulk.....	Library Assistant
Diana Ferguson.....	Nursing
R.N., B.S., Texas Women's University	
Kamill Fogarasi.....	German
B.A., M.A., Wayne State University, Michigan	
Raymond T. Fortner, Jr.....	Business
B.S., M.S., East Texas State University	
Edwin Fowler.....	Dean of Men; Band
B.A., Baylor University; M.Ed., East Texas State University	
Frances Friedman.....	Director, Hudnall Planetarium
Irving L. Friedman.....	Dean of Instruction
B.S., East Texas State University	
A. C. Gentry.....	Art
B.A., The University of Texas	
Ava Lea Gentry.....	Administrative Assistant to the President
A.A., Tyler Junior College	
Alfred Gilliam.....	Choreographer
Robert Glover.....	History, Government
B.A., M.A., Stephen F. Austin State University	
Lorie Kay Gollotte.....	Business
B.S., M.Ed., University of Southern Mississippi	
Cecil Greer.....	History, Government
B.A., University of Miami; M.A., University of Georgia	
Forest Griffin.....	Chairman, Department of Technology; Drafting
B.S., M.S., East Texas State University	
Peggy Hall.....	Dental Hygiene
B.S., Baylor University	
Elinor R. Hanes.....	Spanish, French
A.B., Augustanna College, Ill.; A.M., Oberlin College	

FACULTY (Continued)

Pamela Kay Hankins.....	Business
B.S., M.S., Northwestern State College	
Larue Hardee.....	Nursing
R.N., B.S., University of Wyoming; M.S., East Texas State University	
Charles Hayden.....	Business
B.S., M.S., East Texas State University	
James Alan Haynes.....	Business
B.B.A., The University of Texas; M.B.A., East Texas State University	
John Head.....	Biology
B.A., East Texas State University; M.A., Sam Houston State University	
Royce Ann Heard.....	Mathematics
B.A., Baylor University; M.A., Sam Houston State University	
Claire Heaton.....	Library Assistant
B.A., Stephen F. Austin State University	
Richard Heitzman.....	Speed Reading
B.CH.E., University of Florida	
Ernest E. Hendrix, Jr.....	Surveying
B.S., Texas A&M University	
Milton W. Higgins.....	Business
B.A., B.S., Southwestern State; M.Ed., University of Oklahoma; Ed.D., University of Oklahoma	
James H. Hill.....	Chemistry
B.S., Lamar State College of Technology; M.S., University of Arizona	
Wayne Hill.....	Physical Education, Assistant Football Coach
B.S., M.Ed., Sam Houston State University	
Loretta Holbrook.....	English
B.S., M.A., Stephen F. Austin State University	
Maxine Inteso.....	English
B.A., M.A., East Texas State University	
Iva Jenkins.....	Library Assistant
Wiley W. Jenkins.....	History, Government, and Chairman Department of Social Science
B.S., The University of Mississippi; Ph.D., The University of Texas	
J. W. Johnson.....	Music
B.M., M.M., North Texas State University	
Thomas Jerry Joyner.....	Mathematics
B.S., Mississippi College; M.A., University of South Carolina	
Elton Wayne Keith.....	History
B.A., M.A., Baylor University; M.A., Peabody College	

FACULTY (Continued)

Johnnye Kennedy.....	Assistant Librarian
B.A., M.L.S., Texas Women's University	
Hugh A. Kenner.....	Business
B.B.A., M.B.A., East Texas State University	
Joseph Kirshbaum.....	Chairman, Department of Music
Mus.B., Mus.M., Yale University	
Willie Lankford.....	English
B.A., Texas Women's University; M.A., Stephen F. Austin State University	
Rebecca Laughlin.....	Psychology, Sociology
B.S., M.Ed., Stephen F. Austin State University	
Jerry Leard.....	Vocational Counselor
B.M., Stephen F. Austin State University; M.Ed., The University of Texas	
James A. Leddon, Jr.....	History
B.S., University of Maryland; M.A., University of Texas at El Paso	
Elizabeth H. Lee.....	Mathematics
B.S., Northwestern University; M.A., East Texas State University	
Annah L. Lewis.....	English
B.A., M.Ed., North Texas State University	
James N. Lewis.....	Government, Economics
B.S., M.A., North Texas State University	
Kenneth D. Lewis.....	Registrar
B.S., Texas A&M University; M.S., East Texas State University	
David J. Ligon.....	Government, History
B.S., Portland State College; M.S., Eastern New Mexico University	
Emily Livingston.....	Nursing
B.S., University of Texas Medical Branch	
Eugene B. Long.....	Counselor
A.B., Wiley College; M.A., University of Michigan	
Pauline Mallory.....	Home Economics
B.S., Stephen F. Austin State University	
Jefferson H. Martin.....	Mathematics
B.S.E., Southern State College; M.A., University of Arkansas	
Verna Martin.....	Assistant Librarian
B.A., Texas Women's University	
Merry McBryde.....	Nursing
R.N., B.S., University of Texas	
Loretta McGehee.....	English
B.A., Southern Methodist University; M.A., East Texas State University	
Evelyn McManus.....	Librarian
B.A., Southwestern University; M.S., East Texas State University	
Mary Jane McNamara.....	Library Assistant

FACULTY (Continued)

Carlton A. Metler.....	Electronic Data Processing
B.S., East Texas State University	
Robert E. Meyer.....	Mid-Management
Occupational Supervisor	
H. F. Mills.....	History, English
B.A., M.A., Rice University	
Randall Milstead.....	Physical Education
B.A., M.Ed., Stephen F. Austin State University	
Richard T. Minter.....	Drafting
B.S., M.Ed., Sam Houston State University	
Don Mize.....	Bible
	Director, Baptist Bible Chair
B.A., Baylor University; M.D., Southwestern Baptist Theological Seminary	
George Mueller.....	Piano
B.Ph., University of Chicago; B.M., M.M., American Conservatory of Music	
Grace Mueller.....	Piano
B.M., M.M., American Conservatory of Music	
June Murphy.....	Nursing
R.N., B.S., Texas Christian University	
James Murray, Jr.....	English
B.A., Baylor University; M.A., The University of Texas	
Kenneth Myrick.....	Air Conditioning
Air-Conditioning Engineering Specialist	
Monty Lee Newman.....	Drafting
B.S., M.Ed., East Texas State University	
Margie Noel.....	History
B.A., Austin College; M.A., Tulane University	
Russell D. Oden.....	Mid-Management
B.S., Sam Houston State University	
Willie Lee Palmore.....	Biology Laboratory
B.S., North Texas State University	
Ronald Patschke.....	Mathematics
B.S., M.A., Southwest Texas State College	
Adrian J. Peddy.....	Geology
B.S., Texas Technological College; M.S., East Texas State University	
Mary W. Peddy.....	Business
B.S., Mississippi State College for Women;	
M.Ed., Mississippi State University	
Royce Pelham.....	Air Conditioning
Product Development Technician	
Beverly Perkins.....	English
B.A., Texas Technological College; M.S., East Texas State University	

FACULTY (Continued)

Robert K. Peters.....	History
B.A., Texas Christian University; M.A., Stephen F. Austin State University	
Beverly Phillips	Journalism Laboratory
B.A., East Texas State University	
Lloyd Powers	Speech
B.A., M.A., The University of Oklahoma	
Blanche Prejean.....	English, Journalism
B.A., Texas Wesleyan College; M.A., Stephen F. Austin State University; Ph.D., The University of Texas	
Esten Ray.....	Police Training
B.S., Stephen F. Austin State University	
Herbert L. Richardson.....	Counselor
B.S., M.Ed., University of Houston	
Judith R. Robertson.....	Counselor
B.S., M.Ed., North Texas State University	
Carol T. Robinson.....	Air Conditioning
A.A., Oklahoma State University School of Technical Training	
Thomas G. Robinson.....	Social Science
B.A., M.A., The University of Oklahoma	
Earl F. Rucker.....	Agriculture
B.S., M.Ed., East Texas State University	
Leo Rudd.....	Education-Psychology
B.A., William Jewell College; M.S., East Texas State University	
John T. Saleh, Jr.....	Business Administration
B.B.A., East Texas State University; M.B.A., North Texas State University	
Martin Z. Sammons, Jr.....	Business
L.L.B., Baylor University	
I. C. Sanders.....	Laboratory Instructor
B.A., Rice University; M.A., The University of Texas	
Eva Saunders.....	Dean of Women
A.B., Baylor University; M.A., The University of Texas	
Marvin Schack.....	Air Conditioning
B.S., Colorado State University; M.S., University of Idaho	
Robert V. Scudder.....	Dial Access Engineer
Jacquelyn Shackelford	Speech
B.S., M.S., East Texas State University	
Jarrell T. Shortes.....	Government
B.S., North Texas State University; M.A., West Texas State University	
Thomas Simmons.....	Biology
B.S., M.S., Mississippi State University	
Ann Smith	Accounting
B.B.A., M.B.A., The University of Texas	

FACULTY (Continued)

Walter S. Smith.....	Radio-Television FCC Licensed Radio-Television Engineer
Mahlon Soileau.....	French, and Chairman Department B.A., M.A., University of Southwestern Louisiana; of Foreign Languages French Language Certificate, University of Paris
Charles Sowders.....	Drafting and Advertising Arts B.S., Sul Ross State College
Neville Spiers.....	Physical Education, Assistant Football Coach B.S., North Texas State University
Etta Spivey.....	Business B.S., Mary Washington College
B. Joe Staples.....	Business B.S., East Texas State University
Katie A. Stewart.....	English B.S., Prairie View State College; M.A., Atlanta University
George Stiles.....	Biological Science, and Chairman B.S., Sam Houston State University; of Department of Science M.A., Colorado State College of Education
Clarence Strickland.....	Speech B.S., M.S., East Texas State University
Lorene Strickland.....	English B.A., M.A., Stephen F. Austin State University
Hubert L. Stripling.....	Biology B.S., Louisiana Polytechnic Institute; M.S., Florida State University
Lavern H. Taylor.....	English B.A., Sam Houston State University; M.A., Stephen F. Austin State University
Margaret G. Taylor.....	Nursing B.S., Ball State University; R.N.
George B. Tefteller.....	Mathematics B.S., M.S., East Texas State University
William L. Thomas.....	Assistant Dean, Evening College B.S., East Texas State University
June Thompson.....	English B.S., M.A., Stephen F. Austin State University
Frank S. Tietz.....	Supervisor, Dental Clinic D.D.S., University of Texas Dental Branch
Patsy Tiller.....	Nursing R.N., B.S., Baylor University
Thomas Tooker.....	Director of Counseling and Guidance A.B., University of Wichita; M.Ed., Texas A&M University

FACULTY (Continued)

Floyd Wagstaff.....	Director of Physical Education and Athletics Basketball Coach B.S., Stephen F. Austin State University; M.A., North Texas State University
Mary Frances Waldrop.....	English B.A., M.A., Austin College
Louise S. Walker.....	English B.A., M.Ed., Stephen F. Austin State University
Julia Warren.....	Assistant Librarian A.B., Wiley College; M.S., North Carolina College at Durham
Patricia Warren.....	Art B.A., University of Texas
Michael G. Watkins.....	Government B.A., The University of Texas
Stanley H. Watson.....	History B.S., M.A., Stephen F. Austin State University
Stephen Westmoreland.....	Psychology B.S., M.Ed., North Texas State University
John Richard Wheat.....	Mathematics B.A., Stephen F. Austin State University; M.S., University of Mississippi
Janet R. Wheeler.....	Dental Hygiene Certificate, University of Texas Dental Branch
Mary L. Whiteman.....	Anthropology B.S., Southern Methodist University; M.Ed., East Texas State University
James David Wicks.....	Chemistry B.S., M.A., Southwest Texas State College
Hazel Wilson.....	Nursing B.S., University of Rochester
Bill Paul Witcher.....	Government B.A., East Texas State University
Fred A. Wright, Jr.....	Mathematics B.S., Florida Southern College; M.A., Duke University
John P. Wright.....	Speech B.S., M.S., East Texas State University
Gladys Wylie.....	English B.A., Rice University; M.A., Stephen F. Austin State University
Jimmy D. Yancy.....	English B.A., M.A., Stephen F. Austin State University
Myra York.....	Audio-Visual Aids Coordinator
Radiance Young.....	English B.S., Sam Houston State University; M.A., George Peabody College
Vivian Young.....	Nurse R.N.

THE HISTORY AND DEVELOPMENT OF TYLER JUNIOR COLLEGE

The original Tyler Junior College was established in 1926 as a part of the Tyler Public School System. It operated under this plan with a small enrollment until September 1, 1946.

On November 13, 1945, the voters established a new, independent Tyler Junior College District, authorized a tax levy for the support of the college, and authorized a bond issue for the erection of a new college plant on its own campus, separating it from the public school system on September 1, 1946.

Since then the Tyler Junior College District has been enlarged and extended by ten neighboring school districts which voted to become a part of the College District for junior college purposes only. The present Tyler Junior College District is now composed of the following districts:

The Tyler Independent School District.

The Winona Consolidated Rural High School District No. 67.

The Chapel Hill Independent School District.

The Lindale Independent School District.

The Rice Consolidated Common School District No. 13.

The Dixie Rural High School District No. 5.

The Swan Consolidated Common School District No. 60.

The Pine Springs Common School District No. 48.

Flint Common School District No. 18.

Van Independent School District.

Grand Saline Independent School District.

The College is operated under statutory authority by its Board of Trustees, composed of eleven members.

Students residing in the Tyler Junior College District are entitled to priority in enrollment. Others are admitted if facilities are available, but the College reserves the right to limit the enrollment of students residing outside the Tyler Junior College District whenever in its judgment facilities are not available for additional students.

GENERAL INFORMATION

STATEMENT OF PURPOSE

Tyler Junior College recognizes the responsibility to offer educational opportunities at minimal cost to students varying in interests, aptitudes, talents, needs and goals. It offers equal opportunity to all students meeting admissions requirements. Specific objectives include the following:

Educational: To provide two years of fully transferable college credit courses designed to develop logical, creative, and objective thinking, and to stimulate intellectual curiosity by exposing students to the various academic disciplines;

To provide two-year technical programs in order to prepare students to gain occupational competency as technical personnel in industry, business, government, or as owner-operators of their own establishments;

To provide programs of vocational education for employed adults who need additional training or re-training in order to increase occupational competency.

Cultural: To cultivate the knowledge and appreciation of human achievements in the arts and sciences by providing convocations, by offering elective and adult education courses that stimulate interest in the arts, and by encouraging students to participate in cultural activities.

Social: To encourage the exercise of friendliness and other social virtues by providing opportunities for students to gather at conveniently located student lounges and by offering a well-planned, diversified program of extra-curricular activities, planned and implemented by both the student body and the faculty.

Civic: To encourage effective student government in order to create in each student an intelligent interest in the governmental processes, and to prepare him for responsible citizenship. The community is also encouraged to use the facilities of the college.

Physical: To provide programs of physical development and of competitive sports in order to encourage good habits of physical and mental health, and to stimulate interest in recreation and good sportsmanship.

ACCREDITING. The Tyler Junior College is a member of the Southern Association of Colleges and Texas Schools for the Southern States and the Association of Texas Colleges and Universities.

Membership in these accrediting associations makes possible the transfer of credit for work done in Tyler Junior College to other colleges and universities.

Since colleges differ in their curricula, a student should secure the catalogue of the institution to which he intends to transfer credit. Courses for his first two years should be planned in accordance with the degree plan of the institution to which he will transfer.

ADMISSION. Registration for the fall semester begins in June and continues daily throughout the summer. By this system the student is assured of thorough and leisurely counseling on degree plans and personal problems.

Students will avoid delay in registering by sending a transcript of credits from the high school or college last attended.

1. Admission by Graduation from High School.

Graduation from a standard high school with at least fifteen units of high school credit, including three units in English, is required. The elective units must be chosen from the list approved by the Texas Education Agency.

2. Admission by Examination.

Mature students who are not graduates of a high school may absolve the deficiency by taking examinations.

3. Admission of Transfer Students.

Students may be accepted on transfer from other regionally accredited colleges and universities when eligible to return to their former institutions.

A student seeking to transfer to Tyler Junior College must:

a. Present a complete transcript, bearing impress of seal and signature of college official. The document should include the previous admission record and evidence of honorable dismissal.

b. Continue on scholastic probation at Tyler Junior College if he has been placed on probation at another institution.

c. Not seek to be admitted to Tyler Junior College if he is on enforced scholastic withdrawal from another institution. Residents of the Tyler Junior College District may

apply to the Academic Vice-President for special consideration.

Transfer students will have credit recognition to a maximum of forty-five semester hours toward an appropriate Tyler Junior College degree on work averaging one grade point per semester hour on a three point system.

Such students may earn an appropriate Tyler Junior College degree by doing the last fifteen semester hours or more in Tyler Junior College with a C average.

A student transferring from another collegiate institution is not at liberty to disregard his collegiate record and apply for admission on the basis of his high school record or a part of his college record.

4. Special Admission.

A limited number of special adult students are admitted to evening classes upon individual approval.

5. The American College Testing Program Admission Requirement.

All regular beginning freshmen students (including those with up to 15 semester hours) must submit scores of the American College Testing Program. No other scores are acceptable in substitution. The scores are used for counseling and placement purposes.

It is the student's responsibility to see that these scores are reported to the Registrar well in advance of actual enrollment. Students who were not able to take the tests, however, may do so after arrival on the campus.

The American College Testing Program tests are scheduled for April 24, 1971; July 17, 1971; October 16, 1971; December 11, 1971; February 26, 1972; April 21, 1972; and July 15, 1972; at Tyler Junior College and other conveniently located centers in Texas and elsewhere. A list of them will be found in the student Information Bulletin of the American College Testing Program testing service. Such information booklets and registration forms may be obtained from high school or college counselors or Registrars.

Transfer students with less than fifteen semester hours of credit must submit the American College Testing Program scores.

Registration and Withdrawal Regulations

Responsibility for Admission Requirements. The student himself is responsible for meeting all admission requirements including furnishing the necessary transcripts of his work. His failure to meet all requirements within a reasonable period of time after registration may cause him to be placed on non-credit status in all work for which he has been enrolled.

Late Registration. Students should register at the scheduled times in order to have the widest choice of courses and to make the registration procedure more uniform. With approval of the Academic Vice-President or the Director of the Evening Division, a student may be permitted to enroll after the scheduled period, but a late registration fee of \$7.50 will be charged.

Adding and Dropping Courses. After the beginning of classes, adding or changing of courses will be approved only for the most pressing of reasons such as change of degree plan, conflict of classes, etc. The final date for such changes is the last day of the first week of classes. Application for such changes is made in the Registrar's office.

Quantity of Work Rule. The standard amount of credit work for each student in the regular session is fifteen or sixteen hours a semester exclusive of physical activity courses.

The standard amount of credit work for each student in the summer session is six hours a summer term.

Withdrawals. A student desiring to withdraw from school must submit a withdrawal petition to the Registrar's Office.

Attendance. Regular class attendance is fundamental for the success of the student; therefore, a student must report promptly and regularly to all classes. Excessive absence is cause for dropping the student from the rolls.

Guidance and Counseling. The college offers an extensive program in testing, guidance and counseling, under the supervision of the Director of Guidance and Counseling.

Academic Probation. Students failing to make minimal normal progress in their scholastic programs will be placed on probation the following semester. Failure to remove the classification may call for academic suspension. Minimal progress is defined as follows:

A regular student must earn nine semester hours and nine grade points per semester on the three point system during his first two semesters or until sophomore standing is achieved. Following this the student must earn twelve semester hours and twelve grade points per semester. The student carrying less than four courses must pass all work with a grade point average of one on the three point system.

Students placed upon academic suspension may routinely apply for readmission after remaining out at least one semester. Such students suspended at the end of the spring semester may be granted readmission in good standing the following fall semester, provided they have done at least twelve semester hours with a C average in the intervening summer term.

Students suspended for scholastic reasons may appeal their suspension to a special Admissions Committee composed of the Academic Vice-President, the Dean of Instruction, and a member of the counseling staff.

Extended probationary standing may be granted when the Committee is convinced that extenuating circumstances have been present.

Grades and Reports. Students or parents receive grade reports every nine weeks. The standing of the student in each course is determined by his class performance and by regular examinations. Two hours is considered a reasonable amount of time for average students to spend in preparation for each hour of class work.

Students' grades may be interpreted as follows:

A Excellent	X Official drop while passing
B Good	XF Official drop while failing
C Average	Q Unofficial drop
D Poor	W Official withdrawal from
E Conditional*	college while passing
F Failure	WF Official withdrawal from
I Incomplete**	college while failing

* A student making E will be permitted to remove the condition by a second examination within a semester.

** An incomplete must be made up within the following semester. After this time it is changed to F.

Numbering of Courses. One semester hour represents one class hour per week for four and a half months; for example, one

course meeting three hours a week for nine months carries credit of six semester hours.

Courses are numbered as follows (except in nursing): The first digit of the number indicates the college year in which the course is taken; the second digit in the number indicates the semester of the year in which the course is taken; the final digit indicates the credit value of the course in semester hours; thus, English 123 indicates that the course is the first year, second semester English with a credit value of three semester hours. The addition of a lower case letter indicates that the course is taught in two or more divisions.

In the case of courses offered only in the summer the number 3 as the middle digit indicates the first summer term. The number 4 indicates the second term. The course number 143 therefore indicates a freshman level subject normally taught in the second summer term for three hours credit.

All descriptive titles of courses are followed by two numbers in parenthesis. The first of these numbers gives the number of class meetings each week while the second number gives the number of hours of laboratory each week. For example, the notation (3-2) indicates that a course has three class meetings and two hours of laboratory weekly.

Transfer to Other Institutions. Since colleges differ in their curricula, a student should secure the catalogue of the institution to which he intends to transfer credit. Courses for his first two years should be planned in accordance with the degree plan of the institution to which he will transfer.

Student Load. Except by special permission from the Academic Vice President, a student will not be permitted to register for fewer than four or more than five courses.

Graduation, Degrees and Certificates

The college awards the Associate degree in the fields of liberal arts, applied arts, business administration, engineering, and science to those who complete the requirements as set forth for the particular degree desired and who make proper application to the Registrar for that degree. A diploma is awarded on successful completion of the two-year programs in Electronics and Electronic Data Processing.

For graduation transfer students must maintain a C average on all work attempted at Tyler Junior College.

For graduation the last fifteen semester hours must be completed in Tyler Junior College.

Students who graduate are required to attend the commencement exercises unless excused.

Associate in Arts Degree. Students who complete specified liberal arts or pre-professional requirements for graduation receive the Associate in Arts Degree. Students must complete sixty semester hours of work (exclusive of physical training and Psychology III) with an average grade of at least C.

The sixty semester hours should include twelve hours in English, six in United States History, six in government, and at least fifteen hours of sophomore rank; however, the degree will be granted to any student completing any required sixty hours of a baccalaureate degree plan, provided Government 213-223, English 113-123, United States History 213-223, and the required physical training, are included and the general average is at least C.

Associate in Business Administration Degree. The degree of Associate in Business Administration is conferred upon students who complete a minimum of sixty semester hours (exclusive of physical training and Psychology III) combining liberal arts with a concentration of secretarial, business administration or Electronic Data Processing courses, provided a minimum of a "C" average is maintained and six hours each are completed in English, United States History and Government.

Associate in Applied Arts Degree. The degree of Associate in Applied Arts is conferred upon students who complete the minimum of sixty semester hours (exclusive of physical training and Psychology III) combining liberal arts with a concentration of technical illustration courses, as programmed in this catalogue. A minimum of a "C" average must be maintained and six hours each must be completed in American History, Government and English.

Associate in Applied Engineering Degree. The degree of Associate in Applied Engineering is conferred upon students who complete, with a minimum of "C" average, technological programs in Electronics, Air Conditioning and Refrigeration, Drafting, Petroleum Technology or Surveying as prescribed on pages 106 to 118 in this catalogue.

Associate in Science Degree. The degree of Associate in Science is conferred upon students who complete the minimum of sixty

required hours (exclusive of physical training and Psychology III), combining liberal arts with Nursing, Dental Hygiene or Law Enforcement courses. An average of at least C must be attained. Government 213-223, six hours of United States History and six hours of English must be completed. One year of physical training is required.

Diploma Programs. Diplomas are granted to those who complete the required courses in the fields of Electronics and Electronic Data Processing as outlined on Pages 110-112 of this catalogue.

Proficiency Certificates. Students who satisfactorily complete certain courses of a vocational nature or those who satisfactorily complete technological courses without taking liberal arts courses for a degree are awarded certificates of proficiency.

Physical Education Requirements. Participation in physical education activity is required of all freshmen in Tyler Junior College. However, most degree plans require two years of such courses and most students elect to meet this requirement in Tyler Junior College.

Substitution of participation in the Apache Band or Belles or intercollegiate athletic squad training during the season of the sport is allowed.

Psychology 111 Requirement. All beginning freshmen are required to enroll in and attend the college orientation course Psychology 111.

Buildings and Facilities

The Tyler Junior College occupies a 76-acre campus upon which fourteen modern buildings, primarily of colonial architecture, have been erected.

H. E. Jenkins Hall. Many of the academic classes are held in this building and in it also are located the business offices, laboratories, and various special rooms.

The Academic Building. This modern building includes offices, classrooms, laboratories and special facilities.

The Wise Auditorium - Fine Arts Building. This building, erected from the proceeds of a bond issue and a substantial gift from the Hon. Watson W. Wise, includes an auditorium of surpassing

beauty, in addition to special rooms for music, art, drama, and speech arts.

The George W. Pirtle Technology Center. These buildings include special classrooms and laboratories for instruction in advertising arts, air conditioning and refrigeration, dental hygiene, drafting, electronics, electronic data processing, petroleum technology, photography, surveying, and other technical courses.

The Applied Arts Building. This building contains the drama workshop, art classrooms, and various maintenance and utility facilities.

The Student Center Building. The College Bookstore, Snack Bar, student life offices, student recreational facilities, student lounges, and College Dining Hall are housed in this building.

The Brady P. Gentry Gymnasium. This is a modern gymnasium for women.

The Floyd Wagstaff Gymnasium. This building provides modern facilities for a thorough program in physical fitness and for athletic activities as well as general programs. It has a seating capacity of 3000.

The Hudnall Planetarium. This building houses one of the largest planetariums in Texas as well as special facilities for space education.

The Edgar H. Vaughn Memorial Library. This learning resources center houses the Library; a complete Audio Visual Aids department with production facilities, both audio and video; and an ultra-modern computer controlled dial-access information retrieval center.

Two hundred electronically equipped study carrels provide the student with instant audio and/or video channels to basic or enrichment information in his courses.

Library. An excellent reference library consisting of more than 30,000 volumes is housed in the learning resources center. A competent staff of service librarians constantly seek to help the student in his use of this facility.

The Tyler Museum of Art. This beautiful structure of latest museum design is operated through the cooperation of the Junior League of Tyler and the Tyler Junior College.

Student Housing

Reservations. Students wishing to make dormitory reservations should write to the Dormitory Director, Tyler Junior College, requesting an official application blank for this purpose. It must be accompanied by a deposit of \$100.00 for college dormitories or \$135.00 for private dormitories.

Students will be notified by mail of the date upon which they should arrive and the supplies which they should bring.

Students accepting dormitory housing must agree to occupy it for the length of the college year.

Dining Hall. Students living in the dormitories are required to take their meals in the College Dining Hall.

Dormitories. Three modern air-conditioned dormitories for men and four for women are maintained:

Lillye Mae Vaughn Hall. This women's residence hall was erected in 1958 and furnished through the generosity of Dr. and Mrs. Edgar H. Vaughn. It accommodates 48 women.

Lois Holley Hall. This dormitory, completed in 1969 and named in memory of Mrs. Lois Holley, houses 50 women.

Claridge Hall. This privately owned, dormitory for 90 women is operated under the same regulations and general supervision of Tyler Junior College.

Bateman Hall. This privately owned Dormitory for 166 women is operated under the same regulations and general supervision of Tyler Junior College.

East Hall. 40 men are accommodated in this dormitory.

Center Hall. Facilities for 48 men are provided.

West Hall. Facilities for 48 men are provided.

Inspection of Facilities. In the interest of the enforcement of rules and regulations, Tyler Junior College reserves the right to inspect student housing at any time when there is reasonable cause to suspect violations thereof.

DORMITORY RATES *

The room and board charge is \$380 per semester if paid by the semester in advance. If paid in installments a \$20 service charge is added and installments are payable as follows:

**Holley (Women), Vaughn (Women),
Center (Men), and West Halls (Men)**

FALL SEMESTER		SPRING SEMESTER	
September 1	\$100.00	February 1	\$100.00
October 1	100.00	March 1	100.00
November 1	100.00	April 1	100.00
December 1	100.00	May 1	100.00
<hr/>		<hr/>	
\$400.00		\$400.00	

Claridge Hall (Women), Bateman Hall (Women)

Privately owned, but operated under College regulations. The room and board charge is \$520.00 per semester if paid by the semester in advance. If paid in installments a \$20 service charge is added and installments are payable as follows:

FALL SEMESTER		SPRING SEMESTER	
September 1	\$135.00	February 1	\$135.00
October 1	135.00	March 1	135.00
November 1	135.00	April 1	135.00
December 1	135.00	May 1	135.00
<hr/>		<hr/>	
\$540.00		\$540.00	

* Rates are subject to change.

Note—Non-resident or non-commuting students must reside in college dormitories. No apartments are permitted except to married couples.

Dormitory Holidays and Dining Hall Holidays

Thanksgiving Holidays. All dormitories will close November 24, 1971. They will reopen Sunday, November 28, 1971.

The dining hall will close following the noon meal November 24, 1971. It will reopen for breakfast Monday, November 29, 1971.

Christmas Holidays. The dormitories will close Wednesday, December 22, 1971. They will reopen Monday, January 10, 1972.

The dining hall will close following the noon meal Wednesday, December 22, 1971. It will reopen for breakfast Tuesday, January 11, 1972.

Easter Holidays. The dormitories will close Friday, March 24, 1972. They will reopen Monday, April 3, 1972.

The dining hall will close following the noon meal Friday, March 24, 1972. It will reopen for breakfast Tuesday, April 4, 1972.

Tuition and Fees

Tuition rates in Tyler Junior College are low, since the college is partially supported by the State of Texas. Tuition is due in full at the beginning of the semester. Any other plan must be by special arrangement with the Business Manager. An additional fee of \$10.00 is charged for late registration — enrollment after the regularly scheduled registration days.

All tuition and fee charges are subject to change by the Texas State Legislature.

Tuition per semester is as follows:

Residents of the TJC District:	Tuition per semester
For three or more subjects.....	\$75.00
For two subjects.....	50.00
For one subject.....	25.00

Texas Non-Residents of the TJC District	Tuition per semester
For three or more subjects.....	\$105.00
For two subjects.....	70.00
For one subject.....	35.00

Tuition rates for Evening Division courses for all residents of the State of Texas are the rates specified for residents of the Tyler Junior College District.

The tuition rate charged non-resident students is subject to increase without notice.

The Electronic Data Processing Program has a \$15.00 per semester rental fee in addition to the tuition.

The Dental Hygiene Program has a \$40.00 per semester rental fee in addition to the tuition.

For the tuition charged students in the technical, vocational and terminal courses — see special announcements of these courses. Page 106.

Statutory Fees. In accordance with the requirements of the statutes of the State of Texas all students in certain laboratory courses are charged an appropriate fee.

Music Fees Per Semester — Individual Lessons

	Regular Students Who Enroll for 12 Sem. Hours or More		Special Students Who Enroll for Music Only	
	One 30-min. Lesson Per Week	Two 30-min. Lessons Per Week	One 30-min. Lesson Per Week	Two 30-min. Lessons Per Week
Piano.....	\$75.00	\$100.00	\$90.00**	\$180.00**
Voice.....	75.00	100.00	90.00**	180.00**
Violin, Violoncello....	75.00	100.00	90.00**	180.00**
Harp.....	75.00	100.00	90.00**	180.00**
Organ.....	75.00	100.00	90.00**	180.00**
Clarinet.....	75.00	100.00	90.00**	180.00**
Practice Room (four hours per week).....	\$ 4.00			

** Includes tuition plus special music fee.

Graduation Fees. A fee of \$10.00 is paid by students at the time of graduation.

Non-Resident Tuition. Students whose residence is outside the State of Texas, and who are thereby classified as non-resident students according to the definition provided by the statutes of the State of Texas, are charged a special non-resident tuition rate. At catalogue printing time, a new rate was in process of adoption by the Legislature.

Refund Policy. No refund of tuition will be made except for withdrawals effected during the first two weeks of the regular semester. Qualified applicants will be subject to a 20 per cent tuition charge. To qualify for the refund the applicant must have withdrawn by completing proper forms in the Registrar's office.

Student Aids, Awards, Loans and Scholarships

The Honor Graduate Scholarship. The highest honor graduate of any affiliated high school is given a scholarship covering his tuition. This scholarship must be used within one year from the date of graduation.

The A.A.U.W. Women's Graduate Scholarship. The Tyler Branch of the American Association of University Women has established an annual scholarship of \$100 to be awarded to a woman graduate. The scholarship is awarded on the basis of scholarship, character, and need and is to be used for tuition and fees at the senior institution chosen by the student. The grantee is chosen by a scholarship committee of the A.A.U.W. from a list of three nominees by the college.

Art Merit Award. The Junior League of Tyler has established a \$100 annual award to be granted to the student showing the greatest achievement in the field of art.

The Mary Simpson Award. This is a semester tuition scholarship established by a Tyler Junior College ex-student, Mr. Robert Simpson, managing editor of Jewelers' Circular-Keystone magazine, in honor of his mother. The scholarship is awarded to a freshman journalism major for the best story of the year.

Alpha Delta Kappa Scholarship. The Tyler Teachers Honorary Sorority Alpha Delta Kappa has established an annual tuition scholarship for a student who plans to become a teacher. The scholarship is granted on the basis of ability and prospective success in the field.

The Crusaders Scholarship. The Crusaders Class of the Marvin Methodist Church awards an annual scholarship in the amount of \$125 to a worthy student.

Granberry Pre-Dental Scholarship. Dr. James H. Granberry, an alumnus of Tyler Junior College, has established an annual scholarship covering tuition, fees, and books for a pre-dental student. The scholarship is granted at the end of the freshman year to such a student demonstrating high ability and need.

The Coterie Club. The Coterie Club, composed of musicians and music lovers, has established a scholarship which is awarded annually to a student who shows outstanding talent in music.

The Pounds Award. Mr. and Mrs. W. A. Pounds, Sr. and Mr. W. A. Pounds, Jr. have established an annual award of \$1,000 given to a Tyler Junior College student whose personal characteristics and academic promise are such as to entitle him to financial encouragement in preparing himself for his life's work. Recipients of this award are carefully selected by a Faculty Committee and approved by one of the donors.

The Florence and Marcus Strum Scholarships. Mr. and Mrs. Marcus Strum of Tyler have established two tuition scholarships. The recipients must have reached sophomore standing and are selected on the basis of character, ability, and need.

The Wilton Fair Endowment. Mr. and Mrs. Wilton Fair have established an endowment which is used each year for scholarships and similar purposes.

This endowment consists of the revenue from certain valuable oil properties deeded to the college. Mr. Fair, a former member of the Board of Trustees of Tyler Junior College and one of its most active supporters, and Mrs. Fair established this fund in 1952.

The Pirtle Scholarship in Science and Engineering. Through the generosity of Mr. and Mrs. George Pirtle an annual scholarship of five hundred dollars is bestowed upon a graduating student majoring in engineering or a physical science.

The Texas Society of Professional Engineers Scholarship in Mathematics, Science or Engineering. The Texas Society of Professional Engineers has established a five hundred dollar scholarship made to a graduating Tyler Junior College man or woman who plans to continue study leading to a degree in engineering, chemistry, geology, physics, or mathematics.

The Breakfast Optimists' Club Scholarships. The Breakfast Optimists' Club of Tyler has established an endowment fund from which the income is used for scholarships for a son or daughter of a member of the Tyler Police Department, the Tyler Fire Department, the Smith County Sheriff's Department or a member of those departments.

Opti-Mrs. Club Scholarship. The Opti-Mrs. Club, composed of the wives of the various Optimist Club members of Tyler, has established a \$120 tuition scholarship for a sophomore student based upon ability and need. The student chosen must be a resident of the Tyler Junior College District.

The Mary Wallace Education Scholarship. A \$120 annual scholarship for a second year student preparing for the teaching profession. The recipient must be of good character, pleasing personality, hold at least a B average in two semesters work and need scholarship aid.

The Tyler Legal Secretaries Association Scholarship. The Tyler Legal Secretaries Association has created an annual tuition scholarship for a woman resident of the Tyler Junior College District. The recipient must be in a Secretarial Training program. Preference is given to one who indicates a desire to become a Legal Secretary. Aptitude and need are considered.

The En Avant Club. The En Avant Club, a group of civic-minded young ladies, annually provides a scholarship to some young woman.

The Doctor and Mrs. L. E. Skinner Scholarship. Mr. and Mrs. W. Thomas Smith of Waco, Texas, have established an endowment, the income from which is annually awarded to a graduating high school senior who has established a good record and has financial need. The scholarship is in honor of the Tyler parents of Mrs. Smith.

Lieutenant Ward van Orden Memorial Scholarship. This is an annual scholarship of \$200.00 awarded to a freshman student on the basis of need coupled with proven college scholarship. It is made without consideration of race, color or creed in memory of Lt. van Orden, a graduate of Tyler Junior College who as a Navy Jet Fighter Pilot lost his life off North Viet Nam after 150 combat missions.

John Tyler Parent-Teacher Association Scholarship. A John Tyler graduate whose parent has been a member of the Parent-Teacher Association is eligible for the John Tyler Parent-Teacher Association Scholarship on the basis of ability and need.

The recipient is eligible to receive \$100 per year for the two-year Junior College period. Application may be made through the High School Counselor.

The Optimist Club Oratorical Scholarship. The Optimist Club of Tyler has established a \$100 scholarship in Tyler Junior College for the winner of the annual oratorical contest.

The T. B. Butler Journalism Key. The T. B. Butler Publishing Company of Tyler annually presents a gold key to the outstanding Journalism student of the college.

Journalism Ex-Students Award. The Journalism Ex-Students Association annually awards a cash scholarship to an outstanding student majoring in Journalism.

The E. Fred Herschbach German Language Award. Because of his sincere interest in the German language studies in Tyler Junior College Mr. E. Fred Herschbach of Tyler established a fund, the income from which annually provides a plaque and cash award to the outstanding second year student of German.

The Watson W. Wise Incentive Award. An endowment fund established by the Honorable Watson W. Wise, member of the Board of Trustees of the college, who has made many generous gifts to the college, provides an annual sum for a scholarship and beautiful trophy cup awarded to the student chosen by a faculty committee as the best exemplifying the virtues of industry, scholarship, and student activity.

Tyler Lions Club Scholarships. The Tyler Lions Club has established two annual scholarships of up to \$250 each for students in the Tyler High Schools and Tyler Junior College. The scholarships are restricted to students whose legal residence is in the City of Tyler and who combine qualities of good character and scholarship with need. The scholarships are designed to pay for tuition, fees, and books. Students will be recommended by the high school counsellors and designated by the Board of Directors of the Tyler Lions Club.

The D.A.R. Scholarship. The Mary Tyler Chapter of the Daughters of American Revolution awards a \$100 scholarship annually to an outstanding woman student who is completing her freshman year.

The Juried Arts Scholarships. Juried Arts, Incorporated annually presents one or more patron scholarships to students majoring in Art.

The Century Scholarship. The Century Class of ladies of the Marvin Methodist Church awards \$120 annually to a local girl on the basis of character, ability and need.

Sales and Marketing Executive Scholarship. The Tyler Sales and Marketing Executive Club has established one or more scholarships for talented, deserving students entering college who intend to pursue a career in sales and marketing. These are awarded through the College Scholarship Committee.

Smith County Bar Association Scholarship. The Smith County Bar Association has established an annual scholarship of \$150 which is granted to a student completing his freshman year and planning to major in History, Government or Economics or to one registered in a pre-law program of any kind.

The award is deposited with Tyler Junior College for the student's expenses in his second year. Outstanding scholarship and participation in extra-curricular activities are the basic qualifications upon which the choice is made. Need of the student is a secondary qualification.

The Texas Opportunity Plan Loans. Students who are residents of Texas may, if qualified, receive loans to cover expenses while attending Tyler Junior College provided by the Texas Opportunity Loan Fund of the State of Texas.

Mr. Gene Blakely is the official loan officer and applications should be made directly to him.

The Tyler City Council of Parents and Teachers Scholarship. The Tyler City Council of Parents and Teachers has established an annual scholarship not to exceed \$200 or as much of that amount as is required for tuition, books, fees, etc.

The scholarship is granted to an outstanding and deserving boy or girl graduate of Robert E. Lee or John Tyler High School. Application for the scholarship may be made to the Counselor of the high schools, any member of the Scholarship Committee, or any of the Local Unit Presidents.

Women's Symphony League Scholarship. The Tyler Women's Symphony League annually grants a \$150 scholarship to an outstanding woman music student.

John Ben Sheppard Scholarship. The Texas Law Enforcement Foundation created the John Ben Sheppard Scholarship Fund to provide college educations for children of Texas law enforcement officials killed in performance of duty.

The fund makes college scholarships available for children of law enforcement officers on any level of jurisdiction killed in the performance of duty. The amount of a grant depends on the need of the student.

A Scholarship Committee composed of members of the board of directors of the Texas Law Enforcement Foundation will consider the following points in screening qualified scholarship applicants:

- (1) Aptitude for college work,
- (2) Desire for college training,
- (3) Financial need.

Rehabilitation Assistance. The Texas Rehabilitation Commission offers assistance for tuition and required fees to students who have certain physical or emotional handicaps, provided the vocational objective selected by the handicapped person has been approved by an appropriate representative of the Commission. Through this State agency, other rehabilitation services are available to assist handicapped persons to become employable.

Application for this type of assistance should be made to the nearest Rehabilitation office. Inquiries may be addressed to: Texas Rehabilitation Commission, 216½ West Erwin Street, Tyler, Texas 75701, Telephone: 593-8828.

Texas Law Enforcement Foundation Scholarships. The Texas Law Enforcement Foundation makes available scholarships for sons

and daughters of deceased law enforcement officials. Application blanks for this or the John Ben Sheppard Scholarship may be obtained from the Foundation Office, 3914 Seminole, Houston 27, Texas.

Veterans' G.I. Bill of Rights. Veterans with military service since 1955 are eligible for federal payments and benefits while attending Tyler Junior College.

Mr. Herbert Richardson is the Veteran's Counselor, veterans may see him or phone him for information and assistance in applying for these benefits.

Veteran Dependency Scholarships. The Federal Government has set up provisions in Public Law 634 whereby certain veteran dependents may be eligible for a subsidy while pursuing their education. Orphans of service personnel and dependents of veterans with service connected disability may find themselves eligible.

Vocational Rehabilitation Assistance. The State Board of Vocational Education, through the Vocational Rehabilitation Division offers assistance for tuition to students who have physical disabilities, provided the vocational objective selected by the disabled person has been approved by a representative of the Division. Application for Vocational Rehabilitation assistance should be made to the Rehabilitation office, Box 2034, Longview, Texas, or to the Director of Vocational Rehabilitation, Texas Education Agency, Austin, Texas.

The Mrs. Gary Bennie Henson Loan Fund. This loan fund was established in 1970 in memory of Mrs. Gary Bennie Henson, a member of a prominent philanthropic Tyler family. The student begins repayment when his earnings begin.

The Realtors Board Scholarship. The Tyler Board of Realtors, on the basis of ability and need, awards two annual scholarships of \$200.00 each to local students.

The Pilot Club Scholarship. A \$120.00 scholarship is awarded annually to a Tyler Junior College student by The Pilot Club of Tyler. The recipient is chosen by an educational committee from the organization, and the scholarship is awarded on the basis of academic ability and financial need.

Student Activities

The Tyler Junior College provides various types of student activities which furnish training in leadership, afford opportunities for recreation, and serve as a means of student development. Among these activities are the following:

The Apache. The Apache is the college yearbook. It is an outstanding publication edited and published by a student staff.

The Apache Band. The internationally-famous Apache Band is the official college band, open to all qualified students.

The Apache Belles. The internationally-famous Apache Belles is a uniformed women's organization which presents skilled group performances and routines at football games, and on other occasions.

Throughout the year special study is given to good taste in clothing, make-up, manners and general personal improvement.

The TJC Pow-Wow. The Pow-Wow, the official college newspaper, is prepared and managed by a student staff under the direction of faculty sponsors. Students act as reporters, editors, and business managers of this publication. The paper is furnished free to students.

For twenty-nine consecutive times the Tyler Junior College News has won the highest award given by the Associated Collegiate Press. This award, The **All American Honor Rating**, is given in recognition of merit to a limited number of colleges and universities annually.

The Apache Guard Association. A service organization of college men dedicated to the development of college spirit and good sportsmanship. The association sponsors worthwhile projects.

Athletics. The college schedules intercollegiate competition in football, basketball, baseball, tennis and golf. For non-varsity students an extensive schedule of intramural sports and the physical education program affords all students many opportunities for participation.

The Singing Apaches. The Singing Apaches is a choral society open to capable students interested in vocal music.

The Choralettes. An all-women's choral organization.

The Engineers' Club. This club is composed of students interested in all fields of engineering. Various field trips are taken to indicate the future possibilities of the different branches of the engineering profession.

Sigma Sigma. This organization consists of students preparing to enter the business vocations, such as secretarial and clerical. It provides helpful guidance to the members of the club, as well as pleasant social activities.

The French Club. Le Cercle Francais welcomes students who are interested in France, the French language, and in the French way of life. Bi-weekly business meetings are conducted and its members gather socially one night each month for films, refreshments, and other recreational activities.

Old Heidelberg Club. This organization, sponsored by the German Department, invites those interested in the study of the language, culture and traditions of the German people.

Las Mascaras Dramatic and Forensic Club. Las Mascaras fosters an interest in all phases of forensic and dramatic art. Any student in Tyler Junior College who is interested in them is eligible for membership. Las Mascaras sponsors major dramatic productions and forensic competitions each year.

Phi Theta Kappa. The Alpha Omicron Chapter of Phi Theta Kappa, the national Junior College scholastic fraternity, is composed of members selected on the basis of scholarship, character, leadership and service. Its membership is restricted to ten percent of the students enrolled in the Tyler Junior College, and the faculty and local chapter name as members those students meriting special honor.

The Student Senate. The Student Senate is the official organization for student government.

Social Activities. The social activities of the college include parties, dances, feature movies and other social affairs under the direction and management of the Student Senate and a faculty committee headed by the Dean of Student Life.

Community Concerts. The Tyler Community Concerts organization extends to any regular Tyler Junior College student the privilege of free admission to its concerts at Wise Auditorium on presentation of a valid Tyler Junior College Identity Card.

SUGGESTED COURSES OF STUDY FOR FRESHMEN

Planning a Program in Tyler Junior College. It is important that the beginning college student determines his objective at the time of enrollment and then plans his program to carry him directly to its achievement.

Tyler Junior College, with its Counseling Staff and broad course offerings, assists in planning each student's program to meet his needs.

Transfer students are given course plans designed to meet the special requirements of the degree choice at the chosen Senior College or University. Terminal program students are given courses which prepare them for the career of their choice.

The Texas Junior College Core Curriculum Program. Texas Public Junior College students planning to transfer in baccalaureate programs to Senior Colleges or Universities in the Texas College and University System may, by law, follow special two-year programs as promulgated by the State Coordinating Board. Upon successful completion of the full two-year program of not more than sixty-six hours, the student may transfer it all en-bloc fulfilling all requirements for the first two years of the chosen degree objective. The student must have met the Senior institution's own grade requirements for its own students. The Senior institution must, by law, permit the student all the privileges of its own students who began their program at the same time.

Core curricula have been promulgated in three fields as follows:

MAJOR FIELD I

Bachelor of Arts Degree in Arts and Sciences

Bachelor of Science in Mathematics & Natural Sciences

- | | |
|---|---------------------------------|
| a. English Language Proficiency
(i.e., freshman English) | 3-6 hours |
| b. Literature | 6 hours |
| c. Government (to meet state
statute requirement) | 6 hours |
| d. History (to meet state
statute requirement) | 6 hours |
| e. Natural Science A | 6-8 hours Biological
Science |
| f. Natural Science B | 6-8 hours Physical Science |

- | | |
|---|--|
| g. Mathematics
(collegiate level) | 6 hours |
| h. Foreign Language | for the BA degree:
12-14 hours in a single
language
for the BS degree:
6-8 hours in a single
language |
| i. Humanities and Fine Arts
Electives:
excluding courses in literature
beyond b. above, also no
more than 12-14 hours of
foreign language may be
used in h. and i. combined | 6 hours |
| j. Special Courses | — — |

MAJOR FIELD II**Bachelors Degree in Business Administration**

- | | |
|---|--|
| a. English Language Proficiency
(i.e., freshman English) | 6 hours |
| b. Literature | 6 hours |
| c. Government (to meet state
statute requirement) | 6 hours |
| d. History (to meet state
statute requirement) | 6 hours |
| e. Natural Science A | 6-8 hours |
| f. Natural Science B | — — |
| g. Mathematics
(collegiate level) | 6 hours
(college algebra plus a se-
quential course appropriate
to a business degree) |
| h. Foreign Language | — — |
| i. Humanities and Fine Arts
Electives:
excluding courses in literature
beyond b. above, also no
more than 12-14 hours of
foreign language may be
used in h. and i. combined | 9 hours |
| j. Special Courses | Economics: 6 hours
Accounting: 6 hours |

MAJOR FIELD III**Bachelors Degree in Engineering**

- | | |
|---|---|
| a. English Language Proficiency
(i.e., freshman English) | 9 hours |
| b. Literature | — — |
| c. Government (to meet state
statute requirement) | 6 hours |
| d. History (to meet state
statute requirement) | 6 hours |
| e. Natural Science A | 8 hours Chemistry |
| f. Natural Science B | 8 hours Physics |
| g. Mathematics
(collegiate level) | 9 hours (analytical
geometry and calculus) |
| h. Foreign Language | |
| i. Humanities and Fine Arts
Electives:
excluding courses in literature
beyond b. above, also no
more than 12-14 hours of
foreign language may be
used in h. and i. combined | 3 hours (to satisfy
ECPD requirements) |
| j. Special Courses | Engineering Mechanics:
3 hours
Engineering Graphics:
2 hours |

GENERAL PLANS

The following plans are a few of the most popular fields. Their listing does not indicate that others cannot be taken. College officials will work out degree programs in any desired field.

Since college plans differ, the student should check his course by the catalogue of the college to which he intends to transfer or request the Registrar or Counselor to assist him in doing so.

All first year students take Physical Education unless excused by a doctor's statement.

Agriculture. (Texas A. & M. Plan. Special course plans for other institutions will be arranged.)

SUBJECT	CREDIT
English	6 semester hours
Chemistry	8 semester hours
Algebra	3 semester hours
Biology 124 B	4 semester hours
Agriculture	6 semester hours
United States History	6 semester hours
Psychology 111	1 semester hour
Physical Training	1 semester hour

Bachelor of Arts or Bachelor of Science Degree.

English	6 semester hours
Mathematics	6 semester hours
United States History	6 semester hours
Natural Science	6 or 8 semester hours
Foreign Language	8 semester hours
Psychology 111	1 semester hour
Physical Training	1 semester hour

Bachelor of Business Administration. (General Plan)

Mathematics	6 semester hours
English	6 semester hours
Natural Science	6 or 8 semester hours
Speech	3 semester hours
United States History	6 semester hours
Typewriting (non-credit)	0 semester hours
Elective	3 semester hours
Psychology 111	1 semester hour
Physical Training	1 semester hour

Dentistry.

English	6 semester hours
Chemistry	8 semester hours
Biology	8 semester hours
United States History	6 semester hours
Elective	3 semester hours
Psychology 111	1 semester hour
Physical Training	1 semester hour

Elementary Education Major.

English	6 semester hours
Mathematics or Foreign Language.....	6 or 8 semester hours
United States History	6 semester hours
Geology or General Biology.....	8 semester hours
Music or Art	6 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Secondary Education Major. The plan is the same as the above except music or art is not required unless the student plans to major in one of these fields. Others should substitute subjects in the chosen major fields for music or art.

Engineering. See complete optional plans, Pages 82-83.

Forestry.

English	6 semester hours
Algebra	3 semester hours
Biology	8 semester hours
Trigonometry	3 semester hours
Engineering Drawing	3 semester hours
Descriptive Geometry	3 semester hours
United States History	6 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Geology.

English	6 semester hours
Chemistry	8 semester hours
Trigonometry	3 semester hours
Algebra	3 semester hours
Analytic Geometry	3 semester hours
Geology	8 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Home Economics.

English	6 semester hours
Chemistry	6 or 8 semester hours
Home Economics	6 or 9 semester hours
Electives	6 semester hours
United States History	6 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Law.

United States History	6 semester hours
English	6 semester hours
Natural Science	8 semester hours
Mathematics	6 semester hours
Public Speaking	6 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Typewriting (non-credit, if taking the
Business Administration Plan) 0 semester hours

Mathematics. See mathematics section, Page 82.

Medicine. (Associate Degree Plan)

English	6 semester hours
Chemistry	8 semester hours
Algebra	3 semester hours
Foreign Language	8 semester hours
United States History	3 semester hours
Biology	8 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Music.**Bachelor of Music Degree****Freshman Year**

Music 113T, 123T	6 semester hours
Music 113L, 123L	6 semester hours
Applied Music	8 semester hours
Musical Organizations	2 semester hours
English 113, 123	6 semester hours
United States History or Electives.....	6 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

Sophomore Year

Music 213T, 223T	6 semester hours
Music 212T, 222T	4 semester hours
Applied Music	8 semester hours
Musical Organizations	2 semester hours
English 213, 223	6 semester hours
Government or Electives	6 semester hours

Physics. See physics section, Pages 98-99.

PROFESSIONAL NURSING

The Tyler Junior College, Medical Center Hospital, and Mother Frances Hospital cooperatively operate the Texas Eastern School of Nursing as a separate, non-profit corporation.

Students desiring to enroll in the three-year program should make application directly to the Registrar at 801 Clinic Drive, Tyler, Texas. Those accepted by the Nursing School receive their first two years of instruction through Tyler Junior College with liberal arts and science courses taught on the college campus. Nursing classes are taught at the Nursing School.

The School of Nursing is fully accredited by the National League of Nursing and the completion of its course of study leads to eligibility to take the State Examination for registration as a professional nurse with the title of R.N.

Students satisfactorily completing the first two years including six hours each in English, American History, and National and State Government receive the Associate-in-Science degree.

The following is the curriculum in Nursing for the first two academic years as taught in Tyler Junior College:

First Year — First Semester.

English 113	3 semester hours
Biology 113B	3 semester hours
Biology 114A	4 semester hours
Chemistry 113	3 semester hours
Psychology 213	3 semester hours
Nursing 112	2 semester hours

First Year — Second Semester.

English 123	3 semester hours
Biology 123B	3 semester hours
Chemistry 123	3 semester hours
Sociology 213	3 semester hours
H. E. 123C	3 semester hours
Nursing 122	2 semester hours

First Year — Summer (1st 6 weeks).

Nursing 133	3 semester hours
Pharmacology 144	4 semester hours

First Year — Summer (2nd 6 weeks).

Nursing 143	3 semester hours
Nursing 112*	2 semester hours
Nursing 122*	2 semester hours

*This will be offered at this time only for transfer students who have not had Introduction to Nursing during the fall and spring semester.

Second Year — First Semester.

Nursing 214A	3	semester	hours
Nursing 214B	6	semester	hours
Psychology 223A	3	semester	hours
History 213	3	semester	hours
Government 213	3	semester	hours

Second Year — Second Semester.

Nursing 225	5	semester	hours
Nursing 224	4	semester	hours
History 223	3	semester	hours
Government 223	3	semester	hours

Pre-Nursing Baccalaureate Degree Plan—Freshman Year.

English	6	semester	hours
United States History	6	semester	hours
Biology	8	semester	hours
Psychology	3	semester	hours
Chemistry	6	semester	hours
Sociology	3	semester	hours
Psychology 111	1	semester	hour
Physical Training	2	semester	hours

Optometry.

English	6	semester	hours
Physics	8	semester	hours
Chemistry	8	semester	hours
Biology	8	semester	hours
Mathematics	6	semester	hours
Psychology 111	1	semester	hour
Physical Training	2	semester	hours

Pharmacy.

English	6	semester	hours
Biology	8	semester	hours
Physics	8	semester	hours
Chemistry	8	semester	hours
United States History	6	semester	hours
Psychology 111	1	semester	hour
Physical Training	2	semester	hours

Journalism.

English	6	semester	hours
Natural Science	6 or 8	semester	hours

Journalism (Continued)

Foreign Language	8 semester hours
Mathematics or Electives (see senior college plan).....	3 semester hours
Journalism	3 semester hours
United States History	6 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

ONE YEAR BUSINESS AND COMMERCIAL COURSES

For business students interested in an intensive business course, the Certificate of Proficiency is awarded either in secretarial science, electronic data processing, or general business, upon completion of 30 semester hours of work. These courses are planned to train the student for work in an office. All courses listed under the suggested plan are required.

Secretarial Course

Shorthand 114S - 124S or Shorthand 214S - 224S	8 semester hours
Typewriting 213T - 223T	6 semester hours
Secretarial Practice 113F - 123F	6 semester hours
Business Principles 113P	3 semester hours
Business English 113R (first semester).....	3 semester hours
Business Correspondence 113C (second sem.)....	3 semester hours
Accounting 113A	3 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

General Business Course

Typewriting 113T - 123T or 213T - 223T.....	6 semester hours
Economics 213	3 semester hours
Speech 113 or 223A	3 semester hours
Introduction to Business 113B.....	3 semester hours
Business Principles 113P.....	3 semester hours
Business English 113R (first semester).....	3 semester hours
Business Correspondence 113C (second sem.)....	3 semester hours
Business Law 213L	3 semester hours
Accounting 123A	3 semester hours
Psychology 111	1 semester hour
Physical Training	2 semester hours

**SUGGESTED ASSOCIATE IN APPLIED
BUSINESS ADMINISTRATION DEGREE PLANS.**

GENERAL SECRETARIAL PROGRAM

First year — First semester

English 113	3 semester hours
Shorthand 114S *	4 semester hours
Typewriting 113T *	3 semester hours
Secretarial Practice 113F	3 semester hours
History 213	3 semester hours
Psychology 111	1 semester hour
Physical Education	1 semester hour

First year — Second semester

English 123 or 223B	3 semester hours
Shorthand 124S	4 semester hours
Typewriting 123T	3 semester hours
Secretarial Practice 123F	3 semester hours
History 223	3 semester hours
Physical Education	1 semester hour

Second year — First semester

Government 213	3 semester hours
Business Mathematics 113D	3 semester hours
Office Machines 113M	3 semester hours
Shorthand 214S	4 semester hours
Accounting 113A or 214 **	3 or 4 semester hours

Second year — Second semester

Government 223	3 semester hours
Accounting 123A, 224 or Business Law 213L **	3 or 4 semester hours
Business Correspondence 113C	3 semester hours
Shorthand 224S or Executive Secretaryship 223F	3 or 4 semester hours
Speech 223A	3 semester hours

* Students will be placed in typing and shorthand at determined proficiency levels and professional electives substituted where warranted.

**Students whose objective is a baccalaureate degree are required to take Accounting 214-224.

GENERAL OFFICE PROGRAM

First year — First semester

English 113	3 semester hours
Typewriting 113T *	3 semester hours
History 213	3 semester hours
Introduction to Business 113B	3 semester hours
Business Principles 113P	3 semester hours
Psychology 111	1 semester hour
Physical Education	1 semester hour

First year — Second semester

English 123 or 223B	3 semester hours
Typewriting 123T	3 semester hours
History 223	3 semester hours
Speech 223A	3 semester hours
Business Correspondence 113C	3 semester hours
Physical Education	1 semester hour

Second year — First semester

Government 213	3 semester hours
Economics 213	3 semester hours
Typewriting 213T or Business Law 213L	3 semester hours
Accounting 113A or 214**	3 or 4 semester hours
Psychology 213	3 semester hours

Second year — Second semester

Government 223	3 semester hours
Economics 223	3 semester hours
Psychology 223	3 semester hours
Electives	6 semester hours
Accounting 123A or 224**	3 or 4 semester hours

* Students will be placed in typing and shorthand at determined proficiency levels and professional electives substituted where warranted.

**Accounting 214-224 is required of students whose objective is a baccalaureate degree.

LEGAL SECRETARIAL PROGRAM**First year — First semester**

English 113	3 semester hours
Typewriting 113T *	3 semester hours
Shorthand 114S *	4 semester hours
History 213	3 semester hours
Secretarial Practice 113F	3 semester hours
Psychology 111	1 semester hour
Physical Education	1 semester hour

First year — Second semester

English 123 or 223B	3 semester hours
Typewriting 123T	3 semester hours
Shorthand 124S	4 semester hours
Secretarial Practice 123F	3 semester hours
History 223	3 semester hours
Physical Education	1 semester hour

Second year — First semester

Government 213	3 semester hours
Business Principles 113P	3 semester hours
Shorthand 214S	4 semester hours
Typewriting 213T	3 semester hours
Accounting 214	4 semester hours
or	
Accounting 113A	3 semester hours

Second year — Second semester

Government 223	3 semester hours
Executive Secretaryship 223F	3 semester hours
Shorthand 224S (Legal Secretary Option)	4 semester hours
Business Law 213L	3 semester hours
Business Correspondence 113C	3 semester hours

* Students will be placed in typing and shorthand at determined proficiency levels and professional electives substituted where warranted.

Psychology 213 - 223 and/or Speech 113 or 223A are suggested electives for students placed in more advanced typing and shorthand classes.

MEDICAL SECRETARY PROGRAM

First year — First semester

English 113	3 semester hours
Shorthand 114S *	4 semester hours
Typewriting 113T *	3 semester hours
History 213	3 semester hours
Biology 114	4 semester hours
Psychology 111	1 semester hour
Physical Education	1 semester hour

First year — Second semester

English 123 or 223B	3 semester hours
Typewriting 123T	3 semester hours
Shorthand 124S	4 semester hours
History 223	3 semester hours
Business Principles 113P	3 semester hours
Physical Education	1 semester hour

Second year — First semester

Government 213	3 semester hours
Accounting 113A or 214	3 or 4 semester hours
Typewriting 213T	3 semester hours
Secretary Practice 113F	3 semester hours
Anatomy & Physiology 113B	3 semester hours

Second year — Second semester

Government 223	3 semester hours
Business Correspondence 113C	3 semester hours
Anatomy & Physiology 123B	3 semester hours
Secretarial Practice 123F	3 semester hours
Shorthand 214S or 224S	4 semester hours
(Medical Secretary Option)	

* Students will be placed in typing and shorthand at determined proficiency levels and professional electives substituted where warranted.

Description of Courses

For a description of the system of numbering of courses, see pages 23-24 of this catalogue.

Agriculture

Agriculture Courses with the Asterisk are offered in 1971-72.

Agriculture 113 — General Animal Husbandry (2-2) An introductory survey course intended to acquaint the student with the importance of livestock and livestock farming. General factors influencing efficiency in feeding, market value, breeding, health and adaptability of various species to geographical and climatic regions are studied. The course is designed to develop in the student an appreciation of improved livestock. Selecting and judging the various breeds and market classes are stressed in laboratory.

Agriculture 114A — General Entomology (3-2) The systematic study of the principal orders of insects; the relation of the anatomy of the insect to control measures; the life histories of the more common insects; methods of control for injurious forms.

***Agriculture 113B — Dairying (2-3)** Dairying in its relation to agriculture and community development; branches of dairy industry and conditions affecting their development; the place of dairying on the farm; composition and food value of milk and its products; the production and handling of clean milk on the farm.

***Agriculture 113C — Poultry Production (2-2)** The breeds and types of poultry, culling, poultry for egg production, incubation, brooding and feeding for growth and egg production, winter and summer management, housing and hygiene, preparing poultry for market, methods of marketing; practical application of these subjects to general farm conditions. The practice consists of the identification of breeds and varieties, judging, poultry for egg production, plans for poultry farms and poultry houses, identification of feeds.

***Agriculture 113E — Introduction to Agricultural Economics (3-0)** Characteristics of our economic system and basic economic principles. Organization and management of the farm and ranch firm; structure and operation of the agricultural marketing system; functional and institutional aspects of agricultural finance; the farm problem, its causes, consequences and suggested solutions.

Agriculture 113F — Farm Management (3-0) The art and business of managing a farm, including the study of choosing suitable major and minor enterprises that will provide a profitable business; such as selecting a farm, using proper kinds and amount of labor and capital, simple and accurate cultural organizations, agriculture experiment and extension service.

Agriculture 113G — Landscaping (3-0) This course will acquaint the student with trees, shrubs, grasses perennials, and annuals suitable for landscaping the home grounds, churches, schools, and parks. Biological classification, plant characteristics, best combinations, propagation methods, digging, bagging, transplanting, pruning, and care will be studied.

***Agriculture 123 — Fundamentals of Crop Production (2-2)** Classification and distribution of farm crops; importance of good varieties and good seed; crop improvement; preparation of the seed bed, commercial fertilizers, manures and lime; seeding practices; crop tillage; harvesting; meadow and pasture management; weeds; crop rotation; diseases and insect enemies.

***Agriculture 123D — Wildlife Management (3-0)** A course designed to acquaint the student with the wildlife resources of the United States with special reference to Texas. Emphasis is placed on the inter-relationship of plants and animals in our environment with plans and methods for rehabilitation, maintenance and increase of the desirable species.

***Agriculture 123B — Horticulture (2-3)** A general study of horticulture; the growth and fruiting habits of horticulture plants; a study of the principles and practices of propagating vegetables, fruits and ornamentals, including the methods of handling seed, cuttage, layerage, grafting, budding and bulbs; a study of the planting, fertilization, care, culture, harvesting, handling and utilization of fruit and vegetable crops. Prerequisite: Biology 114B or taken concurrently.

Agriculture 123C — Marketing of Agriculture Products (3-0) A study of the general principles, practices, and problems involved in marketing farm products.

Agriculture 213 — Methods of Animal Selection (3-0) A study of the origin, history, and breed characteristics of livestock, including adaptation, distribution, and breed organizations. A detailed study will include the latest methods of animal selection. Prerequisite: consent of instructor.

Air Conditioning and Refrigeration

Air Conditioning 113B — Blueprint Reading (3-0) Interpreting blueprints related to the installation and servicing of refrigeration and air conditioning units. Reading floor plans, symbols of material and building parts, abbreviations, the architect's scale, reading a scale, measuring blueprints to obtain dimensions, dimensioning standards, wall and ceiling construction, finding structural information on blueprints, types of construction and locating details of blueprints.

Air Conditioning 114A — Fundamentals of Refrigeration (2-4) Terminology, laws of refrigeration, absolute pressure and absolute temperature, energy conversion units; specific heat, latent heat, and sensible heat; measurement of heat in quantity and intensity; tone of refrigeration, pressure temperature relationships, transfer of heat by conduction, convection and radiation; elementary refrigeration, methods applicable to air conditioning, and refrigeration.

Air Conditioning 113D — Fundamentals of Electricity (2-2) This includes alternating voltage and current; the sine wave; vectors and phasors; phase relationships; inductance; inductive reactance; inductive circuits; capacitive reactance; capacitive circuits; R-C, R-L, and R-L-C Circuits; time constants; vector algebra, resonance, and filters.

Air Conditioning 124A — Refrigeration Machines (2-4) Refrigerants and their application in commercial refrigeration; system components, accessories, installation procedures and techniques; diagnosing service problems of mechanical difficulties; methods of defrosting; and making sketches of designs for high, medium, and low temperature installation. Symbols for refrigeration and piping equipment will be used in making sketches.

Air Conditioning 123D — Automatic Controls (2-2) A study of automatic controls and control systems. Time delay relays and switches, power switches, magnetic switches, meters, and application of these devices to control systems. Operation and control of motors, generators, alternators, servomechanisms and other positioning devices.

Air Conditioning 213 — Commercial Refrigeration Systems (2-4) Procedures of load calculating used in commercial refrigeration. Various types of installations are studied with emphasis on the product to be cooled, the desired temperatures to be maintained,

and humidity conditions. Problems involving system balance and component capacity. Use of heat load charts, pipe sizing tables, manufactured data, and specification sheets.

Air Conditioning 213A — Heating (2-4) Warm air systems, heat emitters, electric heating, forced hot water and steam heating systems including selection and sizing of equipment — registers, grills, furnaces, boilers, radiators, baseboard, piping, and ducts. Fuels and burners used in supplying heat for various types of heating systems — coal, oil, natural gas, manufactured gas, liquified petroleum gas, and electricity. Experiments in equipment selection, installation, adjusting, and servicing will be conducted. Heating layout and specifications for an existing structure or one in blueprint stage will be prepared.

Air Conditioning 223 — Air Conditioning Principles (2-4) An introduction to air distribution. Humidity, saturated and unsaturated mixtures; psychrometric charts and graphs; specific heat and air flow calculations, heat load calculations, the state of mixture of two air streams, bypass factor and dehumidification.

Air Conditioning 223A — Related problems - System Designs (2-4) The student will conduct a research project and writing a report which involves an actual installation. This course consists of making drawings that emphasize commercial refrigeration and air-conditioning layouts. Information is gathered, calculations are made, schematic drawings are prepared, and specifications written for the specified installations.

* Art

Art 113 — Creative Design (2-4) A study of the art elements and art principles through creative problems involving the use of a wide range of media and techniques including both two- and three-dimensional design projects. Text as well as lecture and laboratory study is included.

Art 113C — Freehand Drawing (3-3) A basic course in the fundamentals of representation through the drawing of simple objects, still lifes, landscapes, and architectural subjects with an introduction to figure drawing. Emphasis is placed on a sound understanding of freehand drawing skills including: line, value,

* Students planning to transfer art credit on a bachelors degree are required to prepare and retain a portfolio of their work to facilitate their transfer.

proportion, and perspective through the use of a wide variety of drawing media and techniques. Text as well as lecture and laboratory study is included.

Art 114B — Elementary Design (2-4) A basic course for the students of elementary school teaching in which they are introduced to the methods of teaching and using a wide variety of techniques and media in creative two- and three-dimensional projects for the appropriate elementary levels. Text as well as lecture and laboratory study is included.

Art 123 — Creative Design (2-4) A continuation of Art 113 with special emphasis on the design properties and theory of color. The physical and psychological uses of color in design are explored in a variety of creative problems including both two- and three-dimensional design projects. Text as well as lecture and laboratory study is included.

Art 123C — Freehand Drawing (3-3) A continuation of Art 113C with emphasis on drawing the head and human figure using various media and techniques. Basic skeletal and muscular structure of the human figure as related to drawing is included. Text as well as lecture and laboratory study is included.

Art 124B — Elementary Design (2-4) A continuation of Art 114B including additional methods and two- and three-dimensional projects for appropriate elementary levels, with a brief survey of art. Text as well as lecture and laboratory study is included.

Art 213 — History of Art I (3-0) A critical and analytical study of painting, sculpture, architecture, and crafts from prehistoric time to the end of the Middle Ages, through the use of slide illustrated lectures and text study.

Art 223 — History of Art II (3-0) A critical and analytical study of painting, sculpture, architecture, and crafts from early Renaissance times to the present, through slide illustrated lectures and text study.

Art 213O — Painting (2-4) An introduction to the problems of painting and composition, in oil and/or acrylic media. Subjects include color and value mixing charts, simple objects, still lifes, and landscapes done in an objective and representational manner.

Art 223O — Painting (2-4) A continuation of Art 213O with emphasis on more creative and experimental areas of painting,

including the development of painting styles. A wide range of subjects and techniques including abstraction and non objective art are introduced.

Art 213C — Ceramics (3-3) Introduction to ceramic processes. Basic materials and techniques. Hand building, glazing and firing procedure, and introduction to the use of the potter's wheel.

Art 223C — Ceramics (3-3) Problems in ceramics. Personal and professional development in forming and decorating techniques. Emphasis on mastery of potter's wheel, glaze calculation, and casting methods.

Art 223W — Water Color Painting (2-4) An introduction to the water color medium as a means of artistic expression in the interpretation of still lifes and landscapes done in a representational manner.

Bible

These courses are given by affiliation with the Baptist Chair of Bible, the Bible Chair of Texas Methodist Student Movement, The Fifth Street Presbyterian Bible Chair, and the Church of Christ Bible Chair. A maximum of twelve semester hours is accepted toward a degree.

Bible 111 — Selected Studies in the Old Testament (1-0) A brief course of study involving either an Old Testament book or theme.

Bible 111A — Selected Studies in the New Testament (1-0) A brief course of study involving either a New Testament book or theme.

Bible 111B — Selected Studies in Church History (1-0) A brief course of study involving either a general synopsis of Church History, a particular era of Church History, or a History of the Bible.

Bible 111C — An Introduction to Christianity (1-0) A brief course of study involving theological terms, great Bible themes, and a comparison of Christianity with other religions.

Bible 113 — Old Testament Survey (3-0) A study of all the books of the Old Testament giving attention to the historical setting, the message, and the place of each book in its relation to the Bible as a whole.

Bible 123 — New Testament Survey (3-0) A study of all the books

of the New Testament as to author, message, and relation to the entire Bible.

Bible 213 — Life and Teachings of Jesus (3-0) A study of the life of Jesus and His teachings as applied to present-day life.

Bible 223 — Life and Teachings of Paul (3-0) A study of the life and teachings of Paul and their part in the early spread of Christianity.

Biology

Biology 114 — Animal Biology (3-3) An introductory study of the nature of protoplasm and the structure and function of cells is followed by a survey of the animal kingdom, with emphasis on such forms as are of human interest or application. There follows a study of adaptations in selected types as a basis for a consideration of the origin of species and the principles of organic evolution. This course may be followed, or preceded, by Biology 124B by students desiring a year of general biology; it should be followed, or preceded, by Biology 124 by those desiring general zoology.

Biology 124 — Animal Biology (3-3) A study of organ systems of vertebrates, with special reference to man, followed by an introduction to embryology and to the basic principles of heredity.

Biology 124B — General Botany (3-3) An introduction to the plant kingdom with emphasis on the importance of plants to man.

Biology 113B — Anatomy and Physiology (2-2) A study of the anatomy and physiology of the human body. It emphasizes biological principles as applied to vertebrates in general and man in particular.

Biology 123B — Anatomy and Physiology (2-2) A continuation of Biology 113B.

Biology 114A — Microbiology (3-2) The characteristics and activities of microorganisms and their relation to health and disease.

Biology 224 — Comparative Vertebrate Anatomy (3-4) A comparative study of the morphology, physiology, and phylogenesis of vertebrate organ systems. Required of pre dental, premedical and biology majors. Prerequisite: Biology 114 and 124 or 124B.

Business Administration

Business Administration 113 — Oil and Gas Law (3-0) A course designed for workers in petroleum production, leasing, scouting and other oil industry activities.

Business Administration 113A — Elementary Accounting (3-0) Fundamental principles of double-entry bookkeeping applied to a sole proprietorship. Emphasis is given to the following records: financial statements, trial balance, working sheet, special journals, fixed assets and depreciation, notes, and a practice set covering the complete bookkeeping cycle.

Business Administration 113R — Business English (3-0) Fundamentals of grammar, punctuation and sentence structure as employed in written business communications. Work study; sentence analysis; punctuation; paragraphing; planning.

Business Administration 123A — Elementary Accounting (3-0) A continuation of Elementary Accounting 113A. Attention is given to accrued income, accrued liabilities, deferred charges, deferred credits, depreciation, bad debts, taxes, reserves, controlling accounts, and business vouchers. Two practice sets for a sole proprietorship are completed, and bookkeeping for partnerships and corporations are introduced. Prerequisite: Elementary Accounting 113A.

Business Administration 123B — Federal Tax Accounting (3-0) This course deals primarily with the current federal income tax laws. While some attention is given to the economic, social and historic viewpoints, major emphasis is placed on the technical and accounting aspects, including the preparation of income tax returns.

Prerequisite: Instructor's consent.

Business Administration 113B — Introduction to Business (3-0) A general business course designed to give the student an understanding of the fundamental principles of business operation.

Business Administration 113C — Business Correspondence (3-0) A study of grammar, punctuation, sentence structure, paragraphing and composition of business letters.

Business Administration 113D — Business Mathematics (3-0) This course covers the simpler exercises and problems of every-day business calculations—including such topics as the use of aliquot parts, practice on short methods of calculation, fractions, percent-

age, interest and discount, bonds, depreciation, social security, taxes, property taxes, insurance and stocks.

Business Administration 113F-123F — Secretarial Practice (3-0) A course designed for students who are interested in the secretarial field. It covers speed dictation, transcriptions, office ethics, duplicating, office machines, filing and postal information; practice is given in interviewing callers, attending business conferences, and in telephone technique. Typing skill is a prerequisite for this course.

Business Administration 113S-123S — Elementary Shorthand (2-6) Detailed study of principles of Gregg Shorthand by Simplified Functional Method. Special attention is given to word signs, special forms, phrase writing and rapid reading of shorthand. In the second semester emphasis is given to readiness and accuracy in transcription.

Two hours lecture, two hours laboratory, and at least six hours outside work per week is required.

Business Administration 114S-124S — Elementary Shorthand (3-7) (3-3-2) Detailed study of principles of Gregg Shorthand by Simplified Functional Method. Special attention is given to word signs, special forms, phrase writing, and rapid reading of shorthand.

No credit in shorthand is granted until proper efficiency in typewriting is demonstrated. Students must attain a typing speed of at least sixty words per minute with not more than five errors in order to receive credit in Shorthand 124S.

In the second semester there is continued study and review of the principles of shorthand. Dictation and transcription of new matter with emphasis upon readiness and accuracy in transcription. One year of typewriting is recommended.

Business Administration 113T-123T — Typewriting (1-4) A beginner's course in typewriting. Exercises for the mastery of the keyboard by the touch system, instruction in the care of the machine, study of form and arrangement of simple business letters, and simple centering.

Typewriting problems in addressing envelopes, writing business, letters, tabulation, manuscript writing, and legal document writing.

Business Administration 113E — Personal Finance (3-0) Topics studied include inflation, tax problems, insurance, annuities, credit, home ownership, bank accounts, and investments.

Prerequisite: Instructor's consent.

Business Administration 113P — Business Principles (3-0) A course to study the mathematical principles that are used most often in ordinary business operations. Applications of all the principles in learning to operate office machines. Specific office machines used are the rotary calculator, the printing calculator, and the posting machine.

Business Administration 123 — Secretarial Accounting (3-0) A study of the fundamentals of double-entry bookkeeping and their direct application to various business and professions — insurance, law, service operations, medicine, retail stores, and corporations — including the analysis of accounts and the preparation of accounting statements.

Business Administration 213L — Business Law (3-0) Fundamentals, contracts, agency, negotiable instruments, property, and real estate. General principles involving law or bailments, sales, conditional sales, agency, negotiable instruments as they appear in actual cases illustrating practical business problems.

Business Administration 213R — Real Estate Appraisal Principles and Practices (3-0) Fundamental principles of real estate transfers; emphasizing contracts of sale, deeds, abstracts, leases, options, taxes, liens, financing, and market conditions. Also basic consideration of real property appraisal.

Business Administration 223F — Executive Secretaryship (2-3) A course which analyzes the many diversified responsibilities of an executive secretary as an office supervisor.

This study emphasizes secretarial alertness to office problems, as well as the awareness of modern techniques in office management, case studies of secretarial procedure in the different business organizations, and the application of business ethics and office etiquettes.

This course is primarily designed for those sophomore secretarial students who have credit for college secretarial practice (B. A. 113F and B. A. 123F) and advanced college shorthand (B. A. 214S and B. A. 224S) during the freshman year.

Other students may be admitted with consent of the business faculty.

Business Administration 214S-224S — Advanced Shorthand and Office Procedure (3-3-2) Continued study and review of the principles of shorthand. Emphasis on speed building and transcription.

In the second semester emphasis is on taking dictation at very high rates of speed. Dictation is given in the legal, medical and other technical fields as well as general office routines.

Business Administration 214-224—Principles of Accounting (3-3)

The principles of accounting for a single proprietorship organization. A study of the accounting equation, business transactions, business papers, ledgers, books of original entry, classifications and interpretation of accounts and statements, valuation accounts, accrued and deferred items, and the accounting cycle.

Second Semester—Accounting for partnership and corporate business enterprises. A study of the characteristics of each organization, formation, dissolution, and liquidation.

Business Administration 213F — Business and Industrial Psychology (3-0)

The psychological factors operating in business and industry. Employment procedures, personnel testing, attitude analysis, motivation, morals, advertising, and consumer market opinion and motivation research.

Business Administration 213I — Survey of Insurance (3-0)

A general introductory course dealing with the theory and practice of insurance and its economic and social significance. A critical examination is made of the various types of life, fire, and automobile contracts available for protection against personal and business risks. In addition a brief study is made of State and Federal insurance plans, suretyship, and other casualty and property coverage.

Business Administration 213N — Salesmanship (3-0)

A course dealing with the principles of personal salesmanship, with a study of methods, problems, and routine duties of a salesman.

Business Administration 213T - 223T — Advanced Typewriting Problems (1-2-2)

This course includes business reports, business documents, legal documents, tabulation, statistical material, manuscripts, cutting stencils, various forms of business letters and a continued emphasis upon typing speed and efficiency.

Prerequisite: Business Administration 114T - 124T.

Business Administration 223L — Secretarial Procedures (Legal)

(3-2) This course emphasizes the professional rather than the purely routine or clerical aspects of the work of the legal secretary because of the tremendous need for improved professional standards for legal secretaries. This course is designed to fill a void in education for the legal secretarial profession.

Business Administration 223M — Secretarial Procedures (Medical) (3-2) This course emphasizes the professional rather than the purely routine or clerical aspects of the work of the medical secretary because of the tremendous need for improved professional standards for medical secretaries. This course is designed to fill a void in education for the medical secretarial profession.

Chemistry

Chemistry 113 — Introductory Chemistry (3-2) Non-technical course which meets the needs of those who do not expect to specialize in science, engineering or medicine. The course content is devoted to a survey of the principles of inorganic chemistry.

Chemistry 123 — Introductory Chemistry (3-2) A continuation of Chemistry 113. Subject matter includes an introduction to the fields of organic and biochemistry. Prerequisite: Chemistry 113.

Note: Chemistry 113-123 cannot be substituted for Chemistry 114-124 in meeting prerequisites in scientific curricula. Chemistry 113-123 and Chemistry 114-124 may not both be counted for credit.

Chemistry 114 — General Chemistry (3-4) A course serving the prerequisite requirement for engineering, medicine, dentistry, and other professional courses requiring advance work in chemistry. Lectures, demonstrations, and laboratory work sufficient for an understanding of fundamental principles. Laboratory work includes introduction to quantitative and volumetric analysis.

Chemistry 124 — General Chemistry (3-4) A continuation of Chemistry 114, requiring study of equilibrium, acid-base concepts, and qualitative analysis. Prerequisite: Chemistry 114.

Chemistry 214 — Organic Chemistry (3-4) An introduction to the chemistry of the compounds of carbon for science majors. The reactions of aliphatic and aromatic compounds are considered in terms of carbonium ion, carbanion and free radical reaction mechanisms. Stereochemistry and molecular conformations are also considered. Laboratory work offers opportunity for the student to familiarize himself with reactions, properties, and relations of typical organic compounds. Prerequisite: Chemistry 124.

Chemistry 224 — Organic Chemistry (3-4) A continuation of Chemistry 214, requiring study of carboxylic and sulfonic acids, amines, ethers and phenols. Carbonyl and polyfunctional compounds are also considered. Prerequisite: Chemistry 214.

Dental Hygiene

Dental Hygiene 113A — Oral Hygiene (3-0) A study of the factors which contribute to oral health including the accepted methods of preventing caries and periodontal disease.

Dental Hygiene 113 — Oral Anatomy and Physiology (2-4) Detailed study of the anatomy of the teeth, tissues and organs of the oral cavity, related structures; innervation and blood supply of the head; form and function of the teeth. Laboratory projects consist of drawing and carving permanent teeth.

Dental Hygiene 113B — Dental Specialties (3-0) The specialized areas of dental practice are described with the objective of providing a broad background of information that can facilitate the attainment of the requisite degrees of understanding and appreciation. It is intended to assist in establishing a proper perspective of dental hygiene in its relationships to the subdivisions of dentistry.

Dental Hygiene 122 — Radiology Theory (2-0) The theory and technique of oral radiography, anatomical landmarks, arrangements and care of darkroom equipment and solutions, and proper processing.

Dental Hygiene 124 — Dental Hygiene Technique & Clinic (3-8) Instrumentation and clinical procedures in oral prophylaxis and topical application of fluorides. Lectures and demonstrations, including practice on manikins and care and use of instruments. Lectures to aid in a further understanding of a dental practice with on-the-job training. Sterilization, care and use of instruments, medical and dental emergencies which may arise in the dental office will all be emphasized.

Dental Hygiene 123 — General & Oral Histology (3-0) With an introduction and description of general histology, the chief purpose of this course is to aid the student in the study of the microscopic anatomy of the tissues of the mouth and the embryonic development of the face and oral cavity. The microscopic structures of enamel, dentin, pulp, cementum, periodontal ligament, bone, oral mucosa, epithelial attachment, and salivary glands are described in detail.

Dental Hygiene 211D — Dental Materials (1-0) A general study of the sources, properties, uses, and techniques of manipulation of the materials commonly used in dentistry. The students will apply this in "on-the-job training".

Dental Hygiene 213 — General and Oral Pathology (3-0) A study of the fundamental principles of disease processes. Includes histopathology of the more common diseases affecting the body as well as the pathological conditions of the teeth and their supporting structures. Correlation of histopathological changes and clinical manifestations of oral lesions to the principles of biopsy, handling of biopsy materials and maintenance of records are included.

Dental Hygiene 212 — Peridontia (2-0) This course is designed to consider the dental hygienist and periodontics. It includes anatomy and physiology of the periodontium, periodontal pathology, etiology of periodontal disease, oral physiotherapy, and other clinical and preventive periodontics.

Dental Hygiene 214 — Dental Hygiene Clinical Practice I (2-20) Continued applications of principles its clinical practice of dental hygiene. Skills in giving oral prophylaxis, topical applications of fluorides, and patient education are developed. Application of oral radiography technique is developed with patients.

Dental Hygiene 211A — Personal & General Community Health (1-0) A study of personal health habits and traits, and the environmental factors related to these, with special emphasis on the individuals responsibility and to the health of the community. A study of the theory, methodology, and application of principles of public health with emphasis on the role of the dentist and dental hygienist in a public health program.

Dental Hygiene 211B — Pharmacology (1-0) A study of the actions and uses of drugs and anesthetics with emphasis on those used in dentistry.

Dental Hygiene 211C — Children's Dentistry (1-0) A study of the preventive and therapeutic aspects of dentistry for children, child psychology, and management of the child in the dental office. This course also includes nutritional guidance.

Dental Hygiene 222A — Dental Health Education (2-0) A study of methods and materials used in teaching dental health, including educational psychology and philosophy, to the laity in schools and communities, and especially to patients in the practice of dental hygiene.

Dental Hygiene 222B — Ethics, Jurisprudence and Office Management (2-0) Dental ethics, and legal principles for the prac-

ticing dental hygienist. Lectures in office management and procedures.

Dental Hygiene 224 — Dental Hygiene Clinic II (2-20) Continuation of Dental Hygiene Clinic I.

Drafting

Drafting 111 — Blueprint Reading (1-0) Interpretation of blueprints with emphasis on the obtaining of information from mechanical and electronic blueprints for Petroleum Technology majors.

Drafting 113A — Engineering Drawing (2-4) A course designed to cover the basic requirements for an engineering degree with extra emphasis put on drafting skills. The material covered includes lettering, instruments and their use, applied geometry, orthographic freehand and instrument drawings, auxiliary views, sections and conventions, pictorial drawings, dimensions and notes, threads and fasteners, working drawings, charts, graphs and diagrams. Term project — a set of working drawings of a piece of equipment having three or more parts.

Drafting 113B — Freehand Drawing (2-4) A course designed for the draftsman to develop the skill to do good orthographic and pictorial freehand drawings. Air brush techniques are included. Several types of pictorial drawings will be studied and practiced, such as Axnometric, (Trimetric, Diametric, Isometric), Oblique (Cavalier, Cabinet, and projection) Perspective (1, 2, and 3 point perspective and the measuring point method). Pictorial sectional and exploded drawings will be stressed along with product illustration.

Drafting 123A — Architectural Drawing (2-4) A course in home planning with emphasis on details. A complete set of plans for a one-story home is required with Specification Requirements.

Drafting 123B — Mechanical Drawing (2-4) A second course in mechanical drawing. Further study into fundamentals, such as intersections, development, keys, rivets and springs, gears and cams. Added emphasis is given the appendix as applied to making industrial drawings to acquaint the student with the industrial practices in making details, assemblies and isometric drawings.

Drafting 213A — Machine Drawing (2-4) Machine drafting, including details and assemblies of machine parts, jigs and fixtures, with emphasis on the use of American Standards. Templates and industrial drafting equipment. Additional time is spent on drafting in the welding, structural, and piping fields.

Drafting 213D — Descriptive Geometry (2-4) A course involving the principles and application of orthographic projection; space relations of points, lines, and surfaces; the true length of lines in space; space surfaces and intersections and developments; intersections of curved surfaces, cylinders, cones, and spheres; highway, geology and mining problems.

Drafting 213P — Piping Drafting (2-2) Piping diagrams, fabrication details.

Drafting 223B — Map Drafting (2-4) Map Drafting emphasizing lettering, symbols, scales, lease maps, township maps, highway maps and computations, pipe lines, mapping by coordinates and from surveying notes. Most of the work is in ink, using paper, linen and some of the plastics. Same work is done in topography and aerial maps using Edgar Tobin's "Maps for the Oil Industry" as a text. Includes field problems with practical application of surveying instruments. Use of the planimeter, calculator, slide rule and computer calculations.

Drafting 223A — Manufacturing Design, Materials and Processing (2-4) This course is designed to include the theory of design, the study of the properties of metals, plastic, and the manufacturing and processing of articles by casting, forming, and machining. A part of the course includes cost analysis covering manufactured articles as well as the building industry.

Drafting 223C — Plane Surveying (2-4) The use and care of surveying instruments, plane surveys with Transit, and tape, profiles and topography with level, computing cross sections, mapping from notes and computations, using coordinates, and map making with the plane table.

Drafting 223E — Electronic Drafting (2-4) A course designed to cover the basic requirements of electronic drafting used in industry. The material covered includes theory of electronics, schematic drawing and printed board design.

Drafting 223S — Structural Drafting (2-4) This course includes the preparation of design and working drawings for buildings, bridges, tanks, towers and other structures. The student will

become familiar with materials and design connections to transmit forces from one member to another. Emphasis will be placed on the use of Smoley's Combined Tables and the Manual of Steel Construction.

Prerequisite — Engineering Drawing or consent of instructor.

Earth and Space Studies

Geology 114 — General Geology (3-3) Physical geology processes modifying the earth's surface; materials and features of the earth's crust. Laboratory work in cartography, mineralogy, and petrology.

Geology 124 — General Geology (3-3) Historical geology; the history of the earth through geologic times as revealed by rocks and fossils; the origin and development of plant and animal life. Laboratory work in paleontology.

Prerequisite: Geology 114.

Astronomy 113 — A Survey of Astronomy (3-0) The main features of the known universe and the principles involved in their discovery. A non-mathematical survey recommended for all students.

Astronomy 123 — A Survey of Astronomy (3-0) A continuation of Astronomy 113.

Meteorology 113 — Meteorology (3-0) The science of Meteorology presented concisely and systematically in its present state of development. The primary purpose is to set forth the facts and principles concerning the behavior and responses of the atmosphere.

Geology 213 — Mineralogy (2-8) Introductory course in the study of minerals, including elements of crystallography; determination of the common minerals by their physical properties.

Prerequisite: Trigonometry, Geology 124, and Chemistry 114.

Geology 223 — Petrology (2-4) Origin, mode of occurrence, and determination of the common types of igneous, sedimentary, and metamorphic rocks.

Prerequisite: Geology 213.

Geology 223A — Invertebrate Paleontology (2-4) Invertebrate, phyla; sponges, coelenterate, echinodermata, brachiopods, mollusks, and arthropods, stratigraphic and evolutionary paleontology.

Prerequisite: Geology 114-124. Two lectures and four laboratory hours a week.

Geography 213 — Economic Geography (3-0) A study of the relationship of man to his environment; problems of production, manufacture, and distribution of goods in the various regions of the world.

Geography 223 — World Geography (3-0) The earth, its climatic regions; the relation of human activities to physical environments; major cultural divisions and selected regions and countries.

Economics

Economics 213 — Principles of Economics (3-0) An examination of fundamental economic concepts and principles.

Prerequisite: Sophomore standing recommended.

Economics 223 — Economic Problems (3-0) A study of contemporary economic issues and problems.

Prerequisite: Sophomore standing recommended.

Education

Education 113 — Introduction to Educational Psychology (3-0) An introductory study of mental life and the psychological principles underlying motivation, behavior, individual differences, and the learning processes.

Education 123 — Introduction to Education (3-0) A brief survey of the general field of education brought out through a study of the evolution of the present-day public school and its practices.

Electronics

Electronics 113 — DC and AC Theory and Circuits (2-4) A basic course in direct and alternating current. AC and DC circuit parameters, Ohm's law, magnetism, vector algebra, circuit laws and theorems, reactive components, three phase circuit characteristics, power measurement, resonance, and filters.

Electronics 113L — Basic Electricity Laboratory (0-6) The laboratory consists of tests and measurements of electrical circuits at low and medium frequency. Familiarization of component parts. Voltage and current measurement. Construction and testing of M

derived and Constant K filters. Tuned resonant circuits, Measurement of power in AC and DC circuits. Operation of motors and generators, Resistive and reactive networks. Potential transformers, and current transformers.

Electronics 113A — Power Distribution (3-0) A course in power distribution, generating and transmission systems, load center distribution, substation operation, system and line protection fault detectors, and electric utility practices.

Electronics 113M — Elementary Circuit Analysis (3-0) This course is for the purpose of learning the primary language of electronics, to which all future learning must be related. It is a study of methods; it begins with combining two simple electrical quantities, and includes all of the terms, tools, and procedures used to determine resultant quantities of voltage and current present at all points in resistive circuits and networks.

Electronics 123 — Industrial Electronics (3-0) A thorough study of vacuum tube circuits. Power amplifiers, voltage amplifiers, audio and radio-frequency amplifiers. Compensating networks, gain problems and high and low frequency response. Detection of Radio and Picture carrier signals. Design problems for audio and video amplifiers. Intermediate frequency amplifier and noise reduction circuits.

Electronics 123L — Basic Electronics Laboratory (0-6) Tests and measurements of standard, triode, and pentode amplifier circuits. Voltage gain and power gain measurements. Impedance matching, Coupling circuits. Application of amplifier to control devices. Construction of photoelectric amplifier and counters.

Electronics 123M — Advanced Circuit Analysis (3-0) This course is an extension of the study of electronics language, and examines the terms, tools, and procedures necessary for complete A-C circuit analysis, such as determination of power consumed, and current and voltage present in components of series-parallel circuits with resistance, inductance, and capacitance. The special terms peculiar to electronics math (operator j etc.) are explained, and the most common mathematical manipulations necessary to electronics circuit analysis are covered.

Electronics 213B — Semiconductors I (3-0) An introduction to solid state theory through a study of linear circuits based on the operation of semiconductor diodes, transistors, unijunction and field effect transistors, and their h-parameters.

Electronics 213C — Semiconductors Laboratory I (0-6) Laboratory experiments covering the linear operation of the common collector, common emitter, common base, and all the parameters involved.

Electronics 213A — Digital Computer Fundamentals (2-0) Basic concepts of digital computers based on the program, number systems (Binary), basic logic circuits, derivations of Boolean expressions, arithmetic elements, and the memory element.

Electronics 223B — Semiconductors II (3-0) A continuation of semiconductors study covering the non-linear devices and non-linear circuits through a study of oscillators (square & pulse), silicon controlled rectifiers, tunnel diodes, photo diodes, and special digital type circuits.

Prerequisite: Electronics 123 or on instructors' approval.

Electronics 223C — Semiconductors Laboratory II (0-6) Further experimentation with the semiconductor. The implementation of non-linear devices such as the tunnel diode, silicon controlled rectifiers, and photo diodes. Also circuit experiments utilizing special digital circuits such as the schmitt trigger and other logic circuits.

Prerequisite: Electronics 123 or on instructors' approval.

Electronics 223 — Industrial Instrumentation Fundamentals (3-0) Instrument application. Energy and force systems, heat transfer. Electrical and mechanical transducers, liquid and gas flow measurements, liquid level measurements, temperature measurements. Potentiometric devices, indicating and registering equipment, humidity measurements, specific gravity, measurements with radio isotopes, ph measurements, telemetering.

Electronics 113E — Basic Electronics Survey (3-0) A beginning survey of electronics for non-major. Covers basic Ohm's law and power theory. Introduces the student to a wide variety of components and equipment most common to industry. (For non electronic majors only.)

Electronics 123D — Automatic Controls (3-0) A study of automatic controls and control systems. Time delay relays and switches, power switches, magnetic switches, meters, and application of these devices to control systems. Operation and control of motors, generators, alternators, servomechanisms and other positioning devices.

Electronics 123 B—Electrical Instruments and Measurements (3-0)

The mechanics and the science of electrical measurements are given thorough treatment in the course. Starting with basic indicating instruments and continuing through complex integrating devices, both the operating principles and the "hardware" are studied. Range extending devices, rectifiers, bridges, and transformers are used in the laboratory to construct metering systems for typical job requirements. Operation, repair and calibration of measuring instruments. Mathematical analysis is used throughout the course with extensive use of vector algebra and trigonometry.

Electronics 123 C — Electrical Power Systems (3-0) A study of the design, operation and technical details of modern power distribution systems including generating equipment, transmission lines, plant distribution, and protection devices. System load analysis, rates, and power economics are studied.

Pre-requisite: Electronics 113

Electronics 123 E — Operating Problem Analysis (3-0) A study is made of the proper procedures to be used in testing for troubles of electrical systems and their correction. The methods used in setting up and supervising a program of preventive maintenance, trouble-shooting, equipment receiving, data recording, and cost accounting are also studied.

Pre-requisite: Electronics 113

Electronic Data Processing

Electronic Data Processing 113B—Elementary Programming (2-4)

Introduction to Business Programming using the RPG Language. Covers file definitions, input, output, calculations, and table handling. Program Coding and debugging in the RPG Language. Rental Fee — \$15.00.

Electronic Data Processing 113A — Introduction to Computer (3-0)

An introduction to Computer concepts basic to all computers, such as magnetic storage, number systems, internal operations, information retrieval.

Electronic Data Processing 123A — Intermediate Programming (2-4)

An introduction to Programming Techniques using Assembly Language. Includes flowcharting, record layouts, and documentation. Writing source programs, compiling, and debugging in Assembly Language. Rental Fee — \$15.00.

Electronic Data Processing 123B — Computer Operating Systems (3-0) Study of supervisor, job control, link edit, file maintenance, compilations.

Electronic Data Processing 123C — Management Computer Use (3-0) A study of Computer equipment and techniques designed specifically to create better communications between non-technical management and computer technicians at all levels.

Electronic Data Processing 213A — Advanced Programming (2-4) Business report preparation through the use of USA Standard COBOL. Stresses the use of basic COBOL Module statements which are available in all standard COBOL compilers. Several COBOL Programs are written, compiled, debugged, documented, and put into operation by the student. Rental Fee — \$15.00.

Electronic Data Processing 213B — Systems and Procedures I (2-2) Systems fundamentals, machine indoctrination, and essential operations are presented with the view of operating in an EDP environment.

Electronic Data Processing 213C — Computer Language I (2-2) Structure, rules, and techniques of Basic Fortran Language.

Electronic Data Processing 223A — Systems Programming (2-4) A continuation of the study of the COBOL Language with emphasis on systems design to achieve the maximum efficiency from interaction of the programs and utilities necessary to the operation and maintenance of a complete system. Student uses the COBOL Language to implement a complete system, such as, accounts receivable, payroll, or inventory. Student must write, compile, test, and document all programs necessary to the proper function of one of these systems, including exception reports. Rental Fee — \$15.00.

Electronic Data Processing 223B — Systems and Procedures II (2-2) A continuation of EDP 212A, covering specialized techniques allied with integrated data processing, total systems concepts, and computer applications to accounting systems.

Electronic Data Processing 223C — Computer Language II (2-2) Structure, rules and techniques of the PL/I Language.

English

English 113D — Developmental Reading (3-3) This course emphasizes the development of basic comprehension skills in read-

ing. It is designed for students who desire increased reading skills. Training is given in overcoming the weaknesses of individual students and in increasing the speed of reading.

English 113 — Composition and Rhetoric (3-0) The development of the student's ability to think for himself and to express his thoughts in correct, clear language. A study of literature in order to encourage reading.

English 123 — Composition and Rhetoric (3-0) Further training in thinking and the ordering of thoughts by the study of the types of composition. Prerequisite: English 113.

English 213 — English Literature (3-0) A survey course using selections from an anthology to emphasize trends in English literature. Advanced composition.

Prerequisite: English 123.

English 223 — English Literature (3-0) The survey of English literature. Advanced composition. Prerequisite: English 123.

English 223B — Technical Report Writing (3-0) Techniques of verbal efficiency in the various media of engineering and scientific communications, with stress on report and research-report preparation, letters and resumes. Required in technological and engineering plans.

Prerequisite: English 113.

English 213N — Great Books (3-0) Greek plays, Roman lives (from Plutarch), Dante's *Inferno*, Shakespeare's *King Lear*, a Russian novel, twenty English poems, a modern novel.

Foreign Language

French 113-123 — Conversational French (3-0) For students who have never studied French. Conversational approach including fundamentals of grammar, readings, and emphasis on oral and written composition.

French 113A — Readings in French (3-0) Standard elementary grammar with oral and reading exercises. A course to prepare students to read and translate material relating to various sciences.

French 123A — Readings in French (3-0) Translation of material leading to various sciences. Designed to develop technical vocabulary and facilitate in reading scientific material.

French 114 — Beginner's French (3-2) Drill in the pronunciation and the grammar of the French language with written exercises, dictation and conversation in French.

French 124 — Composition and Reading (3-2)

Prerequisite: French 114 or two admission units in French from high school.

French 213-223 — Oral Expression, Reading & Composition (3-0)

Outside readings assigned from French masters. Prerequisite: French 124 or three or four admission units in French from high school.

Spanish 113-123 — Conversational Spanish (3-0) For students who have never studied Spanish. Conversational approach including fundamentals of grammar, readings, and emphasis on oral and written composition.

Spanish 113A — Readings in Spanish (3-0) Standard elementary grammar with oral and reading exercises. A course to prepare students to read and translate material relating to various sciences.

Spanish 123A — Readings in Spanish (3-0) Translation of material leading to various sciences. Designed to develop technical vocabulary and facilitate in reading scientific material.

Spanish 114 — Beginner's Spanish (3-2) Drill in the pronunciation and the grammar of the Spanish language with written exercises, dictation and conversation in Spanish.

Spanish 124 — Composition and Reading (3-2)

Prerequisite: Spanish 114 or two admission units in Spanish from high school.

Spanish 213-223 — Oral Expression, Reading & Composition (3-0)

Outside readings assigned from Spanish masters. Prerequisite: Spanish 124 or three or four admission units in Spanish.

German 113-123 — Conversational German (3-0) For students who have never studied German. Conversational approach including fundamentals of grammar, readings, and emphasis on oral and written composition.

German 113A — Readings in German (3-0) Standard elementary grammar with oral and reading exercises. Course to prepare students to read and translate material relating to various sciences.

German 123A — Readings in German (3-0) Translation of material leading to various sciences. Designed to develop technical vocabulary and facilitate in reading scientific material.

German 114 — Beginner's German. (3-2) Drill in the pronunciation and the grammar of the German language with written exercises, dictation and conversation in German.

German 124 — Composition and Reading (3-2)

Prerequisite: German 114 or two admission units in German from high school.

German 213-223 — Oral Expression, Reading and Composition (3-0) Outside readings assigned from German masters.

Prerequisite: German 124 or three or four admission units in German.

Government

Government 213 — American Government (3-0) A functional study of the American constitutional governmental system, of the origins, developments and present-day problems of the national government, of the rights, privileges and obligations of citizenship.

Prerequisite: Sophomore standing.

Government 223 — American State Government (3-0) The nature, organization, and general principles of local government in the United States, with special attention to these forms in Texas; the judicial, executive, and administrative functions in federal and state government; financing governmental activities.

Prerequisite: Sophomore standing.

History

History 113 — A Survey of British history through 1660 (3-0)

This course introduces the student to the successive developments in British history, institutions, and civilization. Lectures and reading assignments acquaint the student with the Anglo-Saxon legal system, the Norman Conquest, and Feudalism; the Medieval Church; the Development of Parliament; and emphasizes the emergence of Modern Great Britain and the Tudor and early Stuart periods.

History 123 — A Survey of British history since 1660 (3-0) Commencing with the Stuart restoration, this acquaints the student,

through lectures and reading assignments, with the development of British democratic philosophy; the emergence of Britain as a world power in the seventeenth century; the loss of the first Empire; the fight for survival against Napoleon; the growth of the second Empire; Britain's decline as an imperial power; and traces the development of the modern liberal British state.

History 113A — Western Civilization in Mediaeval Times (3-0)

A standard western civilization - cultural development survey course in the cultural, political, and institutional development of the nations of Europe from antiquity to the renaissance.

History 123A — Western Civilization in Modern Times (3-0)

Continuation of History 113A. A standard western civilization - cultural development survey course in the cultural, political, and institutional development of the nations of Europe from the renaissance to modern times.

History 213 — History of the United States (3-0) A general survey of the history of the United States from the era of discovery through the Civil War.

History 223 — History of the United States (3-0) A general survey of the history of the United States from Reconstruction to the present time.

History 223T — Texas History (3-0) A history of Texas from the Spanish period to the present day. Stress is placed upon the period of Anglo-American settlement, the revolution, the republic, and the development of the modern state.

Home Economics

Home Economics 113A — Principles of Food Selection and Preparation (2-4) Fundamental principles in the selection and preparation of foods; nutritive values; cost of foods.

Home Economics 123A — Meal Management (2-4) For majors in Home Economics, hotel or restaurant management. Planning, managing, and serving meals suitable for family groups for all occasions. Selection and use of table appointments.

Home Economics 113B — Costume Design and Selection (2-4) Fundamental principles of design and color applied to the selection and planning of appropriate dress. Emphasis on line, color, and texture in relation to the individual, with laboratory application.

Home Economics 113C — Textiles (2-2) The study of fibers, fabrics, and finishes for application in choices of fabrics for clothing and home furnishings.

Home Economics 123B — Clothing (2-4) Fundamental principles of selection and construction of clothing. Use and alteration of commercial patterns. Problems selected according to the ability and learning experience of the student.

Home Economics 123C — Nutrition (2-2) Fundamental principles of human nutrition applied to the individual, family, and community nutrition problems. Chemistry, physiology and economics of nutrition.

Home Economics 123D — Nutrition (3-0) Fundamental principles of human nutrition applied to individual, family, and community nutrition problems. Chemistry, physiology, and economics of nutrition. This course is restricted to Dental Hygiene students.

Home Economics 123C and 123D cannot both be counted for credit.

Home Economics 124 (3-2) Designed to give the student a background of what to look for and plan for in the home. Also to acquaint the student with the basic needs in home furnishings and with solutions to problems of interior decoration.

Journalism

Selected Journalism majors have opportunities for professional experience with remuneration through Tyler newspaper and electronic news media.

Journalism 113 — Mass Communication (3-1) An introduction to and understanding and evaluation of mass communication. Laboratory in writing for newspaper, radio, television one hour per week.

Journalism 123 — Introduction to Advertising (3-0) The course emphasizes the social and economic benefits of advertising as a medium of communication in print and electronic journalism.

Journalism 123P — Photojournalism (2-3) A beginning course in photography teaching reporting with the camera. Basic instruction in black and white press photography with emphasis on 120 and 35mm cameras. Photographic picture composition, developing, and printing. Prerequisite: Journalism 113. Laboratory fee \$6.50.

Journalism 213 — General Reporting (3-2) Theory and practice in news writing for newspaper, radio, television. Laboratory two hours per week.

Journalism 223 — Editing (3-2) Editing copy for accuracy, objectivity, and readability. Prerequisite: Journalism 113 or 213.

Law Enforcement

Law Enforcement 113 — Introduction to Law Enforcement (3-0)

The philosophy and history of law enforcement is studied. It includes a survey of police problems and crimes. Organization and jurisdiction of local, state and federal enforcement agencies and a survey of professional qualifications and opportunities.

Law Enforcement 113A — Police Administration I (3-0)

The principles of organization, administration and functioning of police departments are studied. This includes personnel policies, operating division policies and command of the department as a whole.

Law Enforcement 123 — Juvenile Procedures (3-0)

Juvenile criminal behavior will be studied to provide an insight into casual factors, precipitating forces, and opportunities for the commission of criminal or delinquent acts. The techniques, responsibilities, and capabilities of police organization in the area of delinquency prevention will be developed.

Law Enforcement 123A — Patrol Operations (3-0)

The principles of organization, administration and the functioning of police patrols are studied. This includes responsibilities, techniques, problems and methods of operations and supervision.

Law Enforcement 213 — Criminal Law (3-0)

This course covers a brief history and philosophy of modern law which includes the structures, definition and application of commonly used Penal Statutes and leading case laws. It also includes a review of the elements of crimes, laws of arrest, search and seizure.

Law Enforcement 223 — Traffic Management and Planning (3-0)

The student examines police responsibilities in traffic planning and investigation. Identifies police policies and procedures in education, engineering, and enforcement responsibilities. An analytical study of special traffic problems, motor vehicle laws and accident investigation techniques is conducted.

Law Enforcement 213A — Criminal Investigation (3-0)

Theories and concepts of the investigator's role in modern criminal investigation are studied. Basic skills necessary in conducting an investigation, developing sources of information, the collection and preservation of evidence and preparation of reports are developed.

Law Enforcement 223A — Criminal Evidence and Court Procedure (3-0)

This course covers a study of the rules governing the admissibility of evidence as they affect the law enforcement officer in the administration of criminal justice. Rules of evidence, kinds and degrees of evidence are studied.

Mathematics and Engineering

The Mathematics program in Tyler Junior College is especially designed to meet the varying needs, backgrounds and abilities of its students. Courses are arranged to cover the fields of technological applied mathematics, liberal arts, business and engineering.

Colleges and universities no longer allow college algebra and college trigonometry to apply toward a degree in engineering. In order for a student to follow a four year program for a degree in these fields, it is desirable that the student take analytic geometry (Mathematics 123A) and Calculus I (Mathematics 213) the first semester of the freshman year.

It is recommended that all engineering and mathematics majors, except those with an unusually strong background in high school mathematics, take college algebra and trigonometry during the summer prior to the first semester of the freshman year. This should be done to provide an adequate background for analytic geometry and calculus.

In order to help the student register for the appropriate mathematics courses, the following prerequisites have been established:

For Analytical Geometry (Mathematics 123A):

1. Credit in College Algebra (Mathematics 113A) and Trigonometry (Mathematics 113B), or
2. A satisfactory score on the mathematics portion of the ACT examination.

For Calculus I (Mathematics 213):

1. Credit in Analytic Geometry, (Mathematics 123A), or
2. Concurrent registration in Mathematics 123A with grades of B or better in both Mathematics 113A and 113B, or
3. A satisfactory score on the mathematics portion of the ACT examination and concurrent registration in Mathematics 123A.

The following plans tentatively show the courses which mathematics and engineering majors take during the two years at Tyler Junior College. In each case, Plan I is the preferred plan. Each student should see a faculty adviser to get an exact plan that will correlate with the curriculum of the senior college of his choice.

PLAN I (Mathematics Majors)**1st Semester**

Mathematics 123A
 Mathematics 213
 English 113
 History 213
 *Foreign Language 114
 Physical Education

2nd Semester

Mathematics 223A
 English 123
 History 223
 Physics 124A
 Foreign Language 124
 Physical Education

3rd Semester

Mathematics 223B
 English 213
 Government 213
 Foreign Language 213
 *Physics 224A
 Physical Education

4th Semester

Mathematics 223
 English 223
 Government 223
 Foreign Language 223
 *Physics 214A
 Physical Education

PLAN II (Mathematics Majors)**1st Semester**

Mathematics 113A
 Mathematics 113B
 English 113
 History 113
 *Foreign Language 114
 Physical Education

2nd Semester

Mathematics 123A
 Mathematics 213
 English 123
 Physics 124A
 Foreign Language 124
 Physical Education

3rd Semester

Mathematics 223A
 English 213
 Government 213
 *Science
 Foreign Language 213
 Physical Education

4th Semester

Mathematics 223 or
 Mathematics 223B
 History 223
 Government 223
 *Science
 Foreign Language 223
 Physical Education

PLAN I (Engineering Majors)**1st Semester**

Mathematics 123A
 Mathematics 213
 Engineering 112
 Chemistry 114
 English 113
 Physical Education

3rd Semester

Mathematics 223B
 History 213
 Government 213
 Physics 224A
 English 213
 Physical Education

* See the catalog of the senior college to which you will transfer.

2nd Semester

Mathematics 223A
*Engineering 213
*Engineering 122
Chemistry 124
English 123
Physical Education

4th Semester

Mathematics 223
History 223
Government 223
Physics 214A
*Engineering 223A
 or English 223
Physical Education

PLAN II (Engineering Majors)**1st Semester**

Mathematics 113A
Mathematics 113B
Engineering 112
Chemistry 114
English 113
Physical Education

3rd Semester

Mathematics 223A
*Engineering 213
History 213
Government 213
English 213
Physical Education

2nd Semester

Mathematics 123A
Mathematics 213
*Engineering 122
Chemistry 124
English 123
Physical Education

4th Semester

Mathematics 223
History 223
Government 223
Physics 214A
*Engineering 223A
 or English 223
Physical Education

Engineering

Engineering 112 — Engineering Drawing (2-2-2) Lettering, free-hand and instrument drawings, shape and size description, pictorial drawings, charts and graphs, line value and lettering to be stressed throughout the course.

Two lectures, two hours of supervised drafting, and two hours of home work per week.

Engineering 122 — Descriptive Geometry (2-2-2) Auxiliary and oblique views, point, line and plane problems. Development, intersection, highway, geology, and mining problems with emphasis on line value and proper lettering throughout the course.

Two lectures, two hours of supervised problems, and two hours of home work per week.

Prerequisite: Engineering Drawing and Solid Geometry or Trigonometry.

* See the catalog of the senior college to which you will transfer.

Engineering 213 — Engineering Mechanics (3-0) Newton's laws, work-energy and impulse-momentum principles for particles; force resultants, introductory rigid body statics.

Prerequisite: Credit or registration for Mathematics 223A.

Engineering 223A — Engineering Mechanics (3-0) Newton's laws, work-energy, impulse-momentum principles for rigid bodies static and dynamic friction.

Prerequisite: Engineering 213 and Mathematics 223A.

Engineering 223B — Strength of Materials (3-0) Analysis of stress and strain; riveted and welded joints; flexure and deflection of beams, shafts, columns; physical properties of materials.

Prerequisite: Engineering 213 and Mathematics 223A.

Mathematics

Mathematics 113 — College Algebra (3-0) A first course in the logical approach to algebra, primarily for liberal arts and business administration majors. This course includes: sets; number system; solution and graphing of first degree equations and inequalities; solution of systems of linear equations and inequalities; polynomials and factoring; quadratic equations and inequalities; relations and functions; exponents; radicals.

Prerequisite: One year of high school algebra and acceptable ACTP mathematics score or Mathematics 113L.

(Notice — A grade of C or better must be made to continue in Mathematics.)

Mathematics 113A — College Algebra (3-0) Designed primarily for engineering and mathematics majors, this course includes: sets; number system; exponents; relation and function; inverse functions; logarithms; quadratic functions; polynomials and elementary theory of equations; systems of equations; inequalities; mathematical induction; progressions; binomial theorem.

Prerequisite: One and one half years of high school algebra or equivalent.

Mathematics 113B — Trigonometry (3-0) Angular measure; functions of angles; derivation of formulas; identities; solution of triangles; equations; inverse functions; complex numbers.

Prerequisite: Mathematics 113 or registration in Mathematics 113A.

Mathematics 113E — Applied Mathematics I (3-0) Signed numbers; fractions; percentage, slide rule, and basic Algebra. For students in technological programs.

Mathematics 113L — Fundamentals of Mathematics (3-0) Designed for students who need a review of fundamental operations in mathematics but who do not intend to take sophomore level or higher mathematics. This course may not be used as a part of the requirements for a major in mathematics. Review of basic arithmetic and algebra with an introduction to trigonometry and logarithms.

Mathematics 113T — Applied Trigonometry (3-0) This course presents the concepts of trigonometry such as angular measure, function of the angles, solutions of triangles and equations. A course for students in technological programs.

Mathematics 123E — Applied Mathematics II (3-0) Ratio and proportion, logarithms, intermediate Algebra, solution of triangles by use of trigonometry, and vectors. For students in technological programs.

Mathematics 113K — Finite Mathematics I (3-0) A beginning course in topics from finite mathematics, with business applications. This course includes: logic; sets; relations and functions; linear equalities and inequalities; vectors and matrices; linear models; counting - permutations and combinations; and probability.

Prerequisite: Acceptable ACTP mathematics score or Mathematics 113.

Mathematics 123K — Finite Mathematics II (3-0) Topics in continuous mathematics, with business applications. This course includes: quadratic, exponential, and logarithmic graphs; sequences, limits, and summation; topics from analytic geometry; topics from calculus; continuity, maxima and minima, simple derivatives and integrals.

Prerequisite: Mathematics 113K.

Mathematics 113G — Introduction to Modern Mathematics (3-0) A study of the language and theory of sets; elementary symbolic logic, axiomatic theories; field of real numbers; algebraic structures.

Mathematics 123 — Mathematics of Finance (3-0) Simple and compound interest; equations of value; annuities; amortization and sinking funds; depreciation; bonds.

Prerequisite: Mathematics 113 or 113A.

Mathematics 123A — Analytic Geometry (3-0) Cartesian coordinates; the straight line; the circle, and conic sections; transformation of coordinates; polar coordinates; parametric equations; transcendental and higher plane curves.

Prerequisite: Mathematics 113A, 113B, consent of Mathematics department, or see introductory paragraph, Page 81.

Mathematics 213 — Calculus I (3-0) Variables, functions and limits; differentiation of algebraic functions, with applications; differentials; mean value theorem; integration of algebraic functions, with applications, differentiation of transcendental functions with applications.

Prerequisite: Mathematics 123A, or see introductory paragraph, Page 81.

Mathematics 223A — Calculus II (3-0) Methods of integration, with applications; improper integrals; indeterminate forms; vectors and curvilinear motion.

Prerequisite: Mathematics 213.

Mathematics 223B — Calculus III (3-0) Introduction to series, expansion of functions, hyperbolic functions, analytic geometry of three dimensional space, partial differentiation, multiple integration with applications.

Prerequisite: Mathematics 223A.

Mathematics 223 — Differential Equations (3-0) Equations of the first order and degree; linear differential equations; operational methods; special types of higher order equations; Laplace transforms; applications of differential equations.

Prerequisite: Mathematics 223A.

Mathematics 223S — Programming for Statistics (3-0) Instruction in programming the computer for solving various problems encountered in business (Fortran). Univariate analysis, measures of central tendency and scatter; index numbers; and analysis of time series. Materials fee, \$2.00.

Prerequisite: Six hours of College Mathematics.

Mid-Management

Mid-Management 113 — Salesmanship (3-0) The basic principles of personal salesmanship are covered, with a study of methods, problems and duties of a salesman.

Mid-Management 123 — Principles of Marketing (3-0) A general analysis made of the social and economic aspects of distribu-

tion as found in business organizations. Included is a study of the marketing structure and functions, institutional problems, prices, advertising and products.

Mid-Management 213 — Advertising and Sales Promotion (3-0)

The fundamental principles, practices and common media in modern advertising are introduced. Included are those activities that supplement both advertising and personal selling, such as sampling, displays, demonstrations and other kinds of effort that render them more effective.

Mid-Management 213B — Personnel Management (3-0)

This course includes the study of personnel policies and administration, education and training, job classification and analysis, labor supply, employment and testing. Hours of work, labor union relations and employee safety and health problems.

Mid-Management 223 — Retail Merchandising (3-0)

A study is made of the planning and supervision involved in marketing merchandise or service which will best serve to realize the marketing objectives of business. Included is the organization and operation of the retail store and an analysis of retail buying and merchandising procedures covering buying, receiving, pricing, credit and collections, sales promotion, display, inventory and control.

Mid-Management 113A - 123A - 213A - 223A — Internship (1-20)

Internship is open only to students enrolled in the Mid-Management Program. This provides actual work experience in the retail, wholesale, or service business field as a paid employee. The student, the employer and the program coordinator develop an individual program for each student. The student is evaluated by both the employer and the program coordinator. A weekly one hour seminar is held in conjunction with his job.

Three semester hours credit each semester for four semesters.

The student can only take one Internship per semester.

Music

Courses are offered for three types of students:

1. Those who desire to pursue a professional career in music after completing a standard four-year music curriculum.
2. Those who desire to take individual private lessons in applied music.
3. Those who desire a cultural background in music.

College Credit in Music

Students who receive college credit are required to meet all admission requirements as listed on pages 20-21. Music majors, who have had no previous training in piano, are required, in addition, to pass a proficiency examination in piano.

Students who desire to take non-credit private lessons are not required to meet regular admission requirements.

The amount of credit is dependent upon the amount of laboratory hours per week decided upon at registration as follows:

1. **Preparatory work** in Applied Music is offered for beginning students and for students not sufficiently advanced to meet requirements for music major courses. College level students enrolling in preparatory courses may receive credit as follows:

- (1) One hour credit; one half-hour lesson, 6 hours practice weekly.

- (2) Two hours credit; two half-hour lessons, 10 hours practice weekly.

2. **Credit in Strings, Woodwinds, Piano and Brasses.**

One semester hour credit requires six hours laboratory per week.

Two semester hours credit requires ten hours laboratory per week.

Three semester hours credit requires thirteen hours laboratory per week.

Four semester hours credit requires sixteen hours laboratory per week.

3. **Credit in Voice.**

One semester hour credit requires six hours of laboratory per week.

Two semester hours credit requires nine hours of laboratory per week.

Three semester hours credit requires twelve hours of laboratory per week.

Piano

Music 112PP, 122PP, 212PP, 222PP — Preparatory Piano. Elements of piano-forte playing; instruction material and exercises according to individual needs; from simple forms of scales and arpeggios; selected compositions from Bach, Beethoven, Clementi, Handel, Haydn, Kuhlau, Mozart, Schumann and others.

Admission by examination.

Music 114P, 124P — Freshman Piano. Major and minor scales and arpeggios studies from Cramer, Czerny, Bach. Three Part Inventions, French Suites, Mozart; Beethoven sonatas of moderate difficulty; suitable selections from Chopin, other composers of the romantic school.

Admission by examination. Two half-hour lessons and 16 hours minimum practice weekly.

Music 214P, 224P — Sophomore Piano. Major and minor scales and arpeggios in all forms and rhythms; studies from Clementi, Czerny, Phillip, Bach, Well-tempered Clavichord, English Suites; Beethoven sonatas, Op. 2, Op. 10, Op. 26; allegro movement of a concerto; selected compositions from Chopin, Debussy, Mendelssohn, Schubert, etc.

Prerequisite: Completion of Freshman Piano or equivalent. Two half-hour lessons and 16 hours minimum practice weekly.

Music 314P, 324P — Advanced Piano. Major and minor scales in parallel and contrary motion, octaves, tenths, sixths, and double-thirds; all forms of broken chords; Bach Preludes and Fugues; Beethoven Sonatas, suitable concertos and concert repertoire; student required to play half-hour recital.

Prerequisite: Completion of Sophomore Piano or its equivalent. Two half-hour lessons and 18 hours minimum practice.

Strings

Music 112PVc, 122PVc, 212PVc, 222PVc — Preparatory Violoncello. Establishment of position; selected studies from Dotzauer, Grutzmacher, and others; appropriate solos. Admission by examination.

Music 112PBv, 122PBv, 212PBv, 222PBv — Preparatory Bass Viol. Establishment of position; studies from Simandl, Book I; scales and bowing exercises.

Admission by examination.

Music 112 PVi, 122 PVi, 212 PVi, 222 PVi — Preparatory Violin. Principles and establishment of good position; simple scales and arpeggios; exercises from Auer, Kayser, Laoureux, Sevcik, Wohlfhart; suitable selections from Bach, Beethoven, Corelli, Faure, Handel, Mozart, Vivaldi, and others.

Admission by Examination.

Music 114Vi, 124Vi — Freshman Violin

Music 114VA, 124VA — Freshman Viola

Music 114Vc, 124Vc — Freshman Violoncello**Music 114BV, 124BV — Freshman Bass Viol**

All form of scales and arpeggios in extended range. Selected study material emphasizing various legato and staccato styles; selected solos from the classic and romantic schools of composition. Admission by examination.

Music 214Vi, 224Vi — Sophomore Violin**Music 214VA, 224VA — Sophomore Viola****Music 214Vc, 224Vc — Sophomore Violoncello****Music 214BV, 224BV — Sophomore Bass Viol**

Three and four octave scales and arpeggios in various rhythms; selected advanced study material; suitable solos from classic, romantic and contemporary composers including works in the larger forms; ensemble literature.

Prerequisite: Completion of Freshman strings or its equivalent.

Voice

Music 113Vo, 123Vo — Freshman Voice. Elements of vocal culture—breath control, voice production, pure vowels, consonants; scales and arpeggios; vocalises—Concone, Panofka, Vaccai; the simpler songs in English and Italian.

Admission by examination.

Music 213Vo, 223Vo — Sophomore Voice. Technical development — the sustained tone of the old Italian bel canto, roulades, runs and trills; the simple opera and oratorio arias of Gluck, Handel, Mozart, Scarlatti; beginnings of German Lieder, English and American songs.

Prerequisite: Completion of Freshman Voice or equivalent.

Woodwinds

Music 112C, 122C, 212C, 222C — Preparatory Clarinet. Principles of posture, embouchure, articulation; elementary scales and arpeggios; graded studies and duets; selected simple pieces.

Admission by examination.

Music 114C, 124C — Freshman Clarinet. Etudes by Klose and Lazarus; major and minor scales, solos and duets.

Admission by examination. Two half-hour lessons and 16 hours minimum practice weekly.

Music 214C, 224C — Sophomore Clarinet. Etudes by Langenus, Lazarus, Rose, and Voxman; major and minor scales, orchestral studies; transpositions; solo and ensemble literature.

Prerequisite: Completion of Freshman Clarinet or equivalent. Two half-hour lessons and 16 hours minimum practice weekly.

Music 112S, 122S — Freshman Saxophone. Chromatic scales, all major and minor scales and arpeggios. Studies equivalent to Calliet Method, Book II; Rubank, Selected Studies, Klose-Derigny. Complete Method. Representative Solos.

Prerequisite: Admission by examination. Two half-hour lessons and 10 hours minimum practice weekly.

Music 212S, 222S — Sophomore Saxophone. Chromatic scales, all major and minor scales and arpeggios. Studies equivalent to Ferling, 48 Etudes, Rubank, Selected Studies; Klose-Derigny, Complete Method. Representative Solos.

Prerequisite: Music 122S or the equivalent. Two half-hour lessons and 10 hours minimum practice weekly.

Music Theory

Music 111T, 121T — Elementary Ear Training and Sight Singing (2-0) Rhythmic, melodic, and harmonic dictation in the major and minor modes; sight singing in the treble and bass clefs. Must be taken concurrently with Music 113T, 123T respectively.

Required of music majors.

Music 113F — Foundations in Music (3-0) This course involves the study of examples of great works constituting our musical heritage. Emphasis will be placed on the development of individual aesthetic discrimination. Where possible the relationship between the arts will be demonstrated. These goals will be accomplished through listening to, viewing, and discussing great works of music, and the techniques and motivations underlying their creation in the societies from which they came.

Music 113T, 123T — Elementary Harmony (3-0) The study of chord building and chord connection including keyboard harmony; triads and their inversions, cadences, modulations to related keys, simple non-harmonic tones, seventh chords, original part-writing exercises. Must be taken concurrently with Music 111T, 121T respectively.

Prerequisite: Ability to read simple music notation. Required of music majors. Chorus is required of all elementary harmony enrollees.

Music 113L, 123L — Introduction to Music (3-0) A general survey of the development of the art of music designed to provide a basic understanding of the principal periods and styles of music literature; origins, folk music, plainsong, vocal and instrumental

forms, elementary acoustics, biographical sketches and bibliography.

No prerequisites; open to non-music majors. Required of music majors.

Music 211T, 221T — Advanced Ear Training and Sight Singing (2-0) Continuation of dictation and sight singing studies, including the C clefs, modulation, and chromatic intervals. Must be taken concurrently with Music 213T, 223T respectively.

Prerequisite: Music 121T. Required of music majors.

Music 213T, 223T — Advanced Harmony (3-2) A further study of harmony and an introduction to counterpoint; the ninth, eleventh and thirteenth chords, chromatically altered chords, modulation to distant keys, the decorative material of harmony; a survey of the five species. Must be taken concurrently with Music 211T, 221T, respectively.

Prerequisite: Music 123T. Required of music majors. Chorus is required of all advanced harmony enrollees.

Musical Organizations

Music 112B, 122B — Band (1-4)

Music 212B, 222B — Band (1-4)

The official Apache Band, open to any student who has had suitable training. Three hours per week.

Music 112Ch-1, 122Ch-1 (1-3)

Music 212Ch-1, 222Ch-1 (1-3)

A mixed chorus organized for the purpose of singing the more important works of vocal ensemble. Members of this group engage in a wide variety of public performance. Open to students by audition. Four hours per week.

Music 112Ch-2, 122Ch-2 (1-2)

Music 212Ch-2, 222Ch-2 (1-2)

A women's chorus organized for the purpose of singing representative works written for this medium. Open to all women students without audition. Three hours per week.

Music 1130, 1230 — Symphony Orchestra

Music 2130, 2230 — Symphony Orchestra

Open to advanced instrumental students. Members are given practical training in professional orchestral routine in the East Texas Symphony Orchestra.

Admission by audition. Four hours per week.

Nursing

Nursing 112 — Introduction to Nursing (2-0) This course is designed to assist the student in her adjustment to college and to the profession of nursing. It includes: a survey of the historical development of nursing from its conception to the modern times, with special consideration of contemporary movements; a discussion of nursing organizations; career opportunities; and professional relationships with emphasis placed on the qualifications considered essential for effective nursing.

Nursing 122 — Introduction to Nursing (2-0) A continuation of Nursing 112 for the advanced student.

Nursing 133 — Fundamentals of Nursing (2-2) Fundamentals of Nursing is designed to serve as a foundation for nursing practice. Material and experiences are planned to aid the students in developing ideals, attitudes, knowledge and skills which are basic to comprehensive nursing care. The student is given the opportunity to contribute, as a team member, to the planning and the providing for comprehensive care. Identifying patient needs and planning the care of the total patient are stressed. Concepts of mental health and interpersonal relationships are introduced to the student in order for him to gain a better understanding of himself and others. The value of good communication techniques are also emphasized. The student must learn not only how to perform common techniques, but also when to perform them and how to modify them in individual patient-nurse situations.

Nursing 143 — Fundamentals of Nursing (2-2) A continuation of Nursing 133.

Nursing 214A — Medical Nursing I (2-10) This introductory course is designed to assist the student in becoming familiar with medical conditions primarily of the adult patient. The content is arranged according to the theory that learning proceeds from the simple to the complex. Part one includes general information and trends applicable to most medical patients. The purpose is to assist the student in developing a foundation for succeeding subject material. Part two is divided into units according to the anatomical systems of the body. Specific conditions are presented in relation to diagnostic measures, classical picture, pathology, medical and surgical management, rehabilitation and health teaching, with special emphasis on nursing care of these patients. Concurrent guided clinical experience is provided in the local hospitals.

Nursing 224 — Community Aspects of Nursing (3-2) This course is designed to help the student develop a better understanding of man's behavior and how this relates to illness and health. Emphasis is placed on the community resources and nursing services available to the patient and the principles and methods used to improve health in the community. A concurrent clinical laboratory practice is provided through an observation period at the Tyler-Smith County Health Department and through laboratory experience in the emergency departments of local hospitals.

Nursing 214B — Surgical Nursing I (4-10) This introductory course is designed to assist the student in becoming familiar with surgical conditions primarily of the adult patient. The content is arranged according to the theory that learning proceeds from the simple to the complex. Part one includes general information and trends applicable to most surgical patients. The purpose is to assist the student in developing a foundation for succeeding subject material. Part two is divided into units according to the anatomical system of the body. Specific conditions are presented in relation to diagnostic measures, classical picture, pathology, medical and surgical management, rehabilitation and health teaching, with special emphasis on nursing care of these patients. Concurrent guided clinical experience is provided in the local hospitals.

Nursing 225 — Introduction to Operating Room Nursing (3-10) This course is an introduction to operating room technique, designed to equip the student with that knowledge necessary to be able to function at a student level in the operating room. The student participates in a very vital process relating to surgical nursing and aids the patient in receiving that care necessary to restore his health, whenever possible. A major emphasis is the knowledge and skill necessary to provide safety to the patient while in the operating room. Concurrent laboratory practice is provided with student rotation through the operating rooms of a community hospital.

Petroleum Technology

Petroleum Technology 113 — Petroleum Development (3-0)

Exploration methods, principles of oil field development, spacing of wells, rotary and cable tool drilling methods, drilling fluids, directional drilling, oil field hydrology, well completion practices.

Petroleum Technology 112A — Rotary Drilling Fluids (1-3)

Testing methods, determining drilling fluid characteristics, drilling fluid problems, use of special drilling fluids, laboratory exercises consisting of practice in altering the properties of fresh water and special drilling fluids for drilling through troublesome zones with the rotary system.

Petroleum Technology 112B — Drilling Equipment Field Laboratory (2-2) Trips to examine different types of drilling equipment in actual operation in the field. Also trips to service companies to study their drilling tools.

Petroleum Technology 121 — Oil Field Records (1-1) A study of records kept by oil companies and reports made within companies and to the railroad commission.

Petroleum Technology 123 — Production Methods (3-0) Methods of production of oil, including lease layout and operation, operation of treating equipment, well stimulation and work over.

Petroleum Technology 122A — Production Equipment Field Laboratory (2-2) Trips to examine different types of production equipment and treating equipment in actual operation and gas lift.

Petroleum Technology 213 — Introduction to Petroleum Industry (3-0) General study of the industry, including history of the industry, chemistry of petroleum, its occurrence in nature and its importance in the world economy, leasing and royalty exploration, drilling and production methods, conservation, transportation and refining, economics of the oil industry.

Petroleum Technology 212A — Well Logging Methods (2-0) A study of theories of electrical, micro-electrical radiation, optical chemical, and mechanical well logging methods and application of these theories, field examples and problems.

Petroleum Technology 213A — Petroleum Laboratory Methods (2-3) Tests made in the oil industry. Emulsion breaking, field tests made on crude oil, elementary refinery tests, corrosion tests, and lubricating oil tests and subsurface laboratory methods.

Petroleum Technology 222 — Planetable Surveying for Geophysics (1-3) Use of the planetable and alidade in surveying as applies to use by geophysical party.

Petroleum Technology 222C — Hydraulics for Petroleum Tech-

nologists (2-0) Hydraulics in drilling, in oil pipelines, and in artificial lift.

Petroleum Technology 222B — Geophysical Methods (2-1)
Theory of geophysical methods; one complete problem in Seismic coverage of an area.

Petroleum Technology 222A — Natural Gas Production (2-0)
Field handling of natural gas, study of methods, equipment technology of natural gas.

Pharmacology

Pharmacology 114 (4-1) This course is designed to help the student develop an understanding of drugs, their administration, uses, effects and side effects. Emphasis is placed on classes of drugs as they are used in the various body systems and the nursing care needed during drug therapy.

This course also assists the student to become proficient in accurately calculating dosages and/or preparing correct solutions for medication administration.

Photography

Photography 123 — Basic Photography (2-4) The basic techniques, theory and practice of black and white photography. Study of exposure, development and printing, photographing of technical activities and equipment included with emphasis on composition.

Prerequisite: Journalism 113 or Technical Illustration 113A.
Laboratory fee: \$6.50.

Physical Education

Physical Education 111, 121, 211, 221 — Physical Training for College Men (0-2) Includes such activities as calisthenics, isometrics, karate, football, basketball, volleyball, track, tennis, softball, and other physical fitness activities.

Physical Education 111A, 121A, 211A, 221A — Physical Training for College Women (0-2) Physical activities for women including calisthenics, basketball, volleyball, table tennis, tennis, archery, tap dancing, badminton, etc.

Physical Education 111B — Basketball and Softball (0-2) A course for women physical education majors offered spring semester odd numbered years.

Physical Education 111C — Speedball and Volleyball (0-2) A course for women physical education majors offered fall semester even numbered years.

Physical Education 111D — Badminton and Archery (0-2) A course for women physical education majors offered spring semester even numbered years.

Physical Education 111E — Tennis (0-2) A course for women physical education majors offered fall semester odd numbered years.

Physical Education 111T - 121T - 211T - 221T — Advanced Tennis (0-2) A course for men and women desiring to participate in inter-collegiate tennis. Admission by consent of the instructor.

Physical Education 113C — Art of Daily Living (3-0) (Women) A course designed to place emphasis on the needs and activities of the individual student to assist in making proper adjustments. The fundamental aim is to develop self-assurance through knowledge that one's health, appearance, clothes, styling, make-up, and posture are correct. Students are given personalized instruction with respect to their own problems. By means of lectures, demonstrations, practice, and opportunities to perform in public, an effort is made to develop in the student greater poise and alertness. Instruction includes techniques for balance and control of movement, selection and care of clothing.

Physical Education 123C — Art of Daily Living (3-0) (Women) A continuation of Physical Education 113C.

Physical Education 113 — Methods (2-2) The organization and administration of physical education in the public schools. The course of study for physical education as recommended by the Texas State Department of Education for high schools is used as a basis for study. Laboratory periods are devoted to actual problems in the field.

Physical Education 123 — Methods (2-2) A continuation of Physical Education 113 with special attention given to problems in the physical education field.

Physical Education 113A — Theory of Football and Track (3-0)

Physical Education 123A — Theory of Basketball and Baseball (3-0)

Physical Education 213 — Health and Hygiene (3-0) A study of personal and community health. A study is made of causa-

tive factors of diseases, their means of transmission and prevention.

Physical Education 223 — Sports Understanding (3-0) This course is especially designed for those who wish to develop a complete understanding of sports both major and minor. Rules, terminology, and finesse are studied.

Physical Education 213C — Appreciation of Dance (3-2) (Women) Basic fundamentals and interpretations of dance; the principles and applications applied to the interpretation of modern and conventional dance.

Physical Education 223C — Appreciation of Dance (3-2) (Women) A continuation of Physical Education 213C.

Physics

Students majoring in physics are encouraged to take Mathematics 113A and Mathematics 113B in summer school so that they may enroll in Mathematics 213 in the Fall semester thereby eliminating the need for concurrent enrollment in Mathematics 213 and Physics 124A in the Spring semester. Students with a strong background in mathematics may be able to omit these courses (see the section on Mathematics and Engineering in this catalogue).

Physics 113 — Physics Problems (3-0) The use of the slide rule, preparation and interpretation of graphical data. Problems from physics and engineering are used as exercises. Required of students in Electronics, Drafting, and Petroleum Technology.

Physics 114B — General Physics (3-3) A course for premedical students, majors in pharmacy and architecture, and other students who need a two-semester technical course in physics but who do not intend to take additional courses in physics.

Mechanics, heat, and sound.

Physics 124B — General Physics (3-3) A continuation of Physics 114B.

Electricity and magnetism, Light, atomic and nuclear physics.

Prerequisite: Physics 114B

Physics 124A — Mechanics (3-3) A course for students who intend to major in physics, chemistry, or mathematics.

Prerequisite: Credit or registration in Mathematics 213.

Physics 214A* — Advanced Physics (3-3) Heat, Wave-motion, and optics.

Prerequisite: Physics 124A, or Engineering 213, and credit or registration for Mathematics 223A.

Physics 224A* — Advanced Physics (3-3) Electricity and magnetism.

Prerequisite: Physics 124A or Engineering 213 and credit or registration for Mathematics 223A.

Psychology

Psychology 111 — Freshman Orientation. Freshman Orientation is a course designed to help students bridge the gap between high school and college. Library usage, study habits, good attitudes, and budgeting of time are taught. The interpretation of standardized tests and vocational counseling are included in the course. Required of all beginning students unless excused by the Academic Vice President.

Psychology 113A — Psychology of Learning (3-0) Fundamental mental and psychological principles underlying motivation, behavior, individual difference, and the learning processes.

The student may not count both Education 113 and Psychology 113A for credit.

Psychology 111A — Psychology of Learning (1-0) This is the first one-third of Psychology 113A offered on a one semester hour basis in the evening college.

Psychology 111B — Psychology of Learning (1-0) This is the second one-third of Psychology 113A offered on a one semester hour basis in the evening college.

Psychology 111C — Psychology of Learning (1-0) This is the final one-third of Psychology 113A offered on a one semester hour basis in the evening college.

Psychology 213 — Introductory Psychology (3-0) A study of the basic principles of psychology, bearing on individual differences, intelligence, the development of personality, growth, motivation, drives, emotions and learning.

Prerequisite: Sophomore standing.

* Physics 214A - 224A are designed to meet the second year physics requirements of students in engineering, chemistry or mathematics.

Psychology 223 — Applied Psychology (3-0) The application of psychological principles to common adjustment and behavioral problems, career choice and everyday activities of life and work.

Prerequisite: Sophomore Standing.

Psychology 223A — Child Growth and Development (3-0) How children grow and develop, the stages in the process and the physical, social, mental and emotional factors which influence growth and development up to adolescence are considered.

Sociology and Anthropology

Sociology 213 — Introduction to Sociology (3-0) Basic concepts and principles of social behavior; relationships of culture and social interactions to human behavior; analysis of existing group structures and social organizations.

Prerequisite: Sophomore Standing.

Sociology 223 — Social Problems (3-0) Application of sociological concepts and methods to the analysis of current social problems which include juvenile delinquency, adult offenders, alcoholics, suicides, family disorganizations and crimes in the community.

Prerequisite: Sophomore Standing.

Anthropology 213 — Social Anthropology (3-0) A consideration of various forms of social institutions, such as the family, clan, kin groups, community, sodalities, religion, and government, found over the world and exemplified by such people as the Apache and Hopi Indians, Australians, Samoans and Hottentots. Various schools of Social Anthropology theory are summarized.

Sociology 223A — Industrial Sociology (3-0) Principles of work relations in jobs, emphasis on social relations of groups and occupations. Rise, scope, and major problems of industrial sociology. Social adjustment of the workers and social organization of work plant as integral parts of society.

Sociology 221A — Industrial Sociology (1-0) This is the first one-third of Sociology 221 offered on a one semester hour basis.

Sociology 221B — Industrial Sociology (1-0) This is the second one-third of Sociology 221 offered on a one semester hour basis.

Sociology 221C — Industrial Sociology (1-0) This is the third one-third of Sociology 221 offered on a one semester hour basis.

Anthropology 213A — Introduction to Anthropology (3-0) Principles of physical and cultural anthropology; analysis of the cultures of prehistoric and existing preliterate people; impact of modern western culture on preliterate societies.

Anthropology 211A — Introduction to Anthropology (1-0) This is the first one-third of Anthropology 213A offered on a one semester hour basis.

Anthropology 211B — Introduction to Anthropology (1-0) This is the second one-third of Anthropology 213A.

Anthropology 211C — Introduction to Anthropology (1-0) This is the final one-third of Anthropology 213A.

Anthropology 223 — Cultural Anthropology (3-0) A comparative study of culture and social organization among primitive or preliterate societies. Emphasis upon marriage, property, religion, magic and tribal control. Attention is also given to the significance of the study of primitive cultures for an understanding of urban industrial civilizations.

Speech and Drama

Speech 111 — Parliamentary Procedure (1-0) A course covering correct procedure in the forming of an organization and how to conduct meetings properly.

Speech 113 — Public Speaking (3-0) Practice in platform delivery; planning, organizing and delivering general platform speeches. Principles and types of speeches involved in the areas of platform speaking, rhetoric and public address. Speech 113 and Speech 223A cannot both be counted for credit.

Speech 113A — Fundamentals of Speech (3-0) Fundamental principles of voice development, variety in expression and interpretation; use of visual action in oral communication; planning, organizing and delivering general platform speeches and readings.

Speech 113B — Speech for Prospective Teachers (3-0) Improvement in the prospective classroom teacher's self-command of the basic requirements of good speech; understanding the practical application of speech experience in guiding and promoting the learning of students. Speech 113A and Speech 113B cannot both be counted.

Speech 113C — Voice, Diction, and Phonetics (3-0) The basic principles of diction, including the physiological description and

visual notation of speech sounds; the basic principles of voice development and interpretation; intensive practical application through classroom exercises and special projects to meet individual vocal needs and professional objectives. Speech 113A and Speech 113C cannot both be counted.

Speech 123A — Oral Interpretation (3-0) Analysis of thought; development of imagination; oral presentation of literary forms; individual problems in interpretative reading. Prerequisite: 113A or consent of the instructor.

Speech 123B — Fundamentals of Acting (2-2) Theory and practice in bodily control, voice, pantomime, interpretation, characterization, and stage technique. Analysis and study of specific roles, principles of group movement, varied projects in group acting, application of principles in departmental productions.

Prerequisite: Speech 113A. Offered in even numbered years.

Speech 123C — Basic Theatre Practice (3-2) Study and practice in the visual arts of the theatre. Includes an introduction to the following: stagecraft, scene design, lighting, costume design and makeup. Three (3) hours lecture per week, and two (2) hours laboratory per week. Additional work on technical crews to provide practical experience.

Speech 123D — Introduction to Radio and Television Communication (2-4) A study of the principles of radio and television speaking, including the preparation of commercials, news and program continuity. History, development and regulation of the broadcasting industry as a mass medium and social force. Practical experience in performance on the college radio station. Two lectures and four laboratory hours per week.

Prerequisite: Speech 113A or consent of instructor. Offered in odd numbered years.

Speech 213A — Survey of the Theatre (3-2) An introductory study of the history, art and aesthetics of drama, including an elementary consideration of plays and playwriting; the techniques and styles of acting and directing; present day production techniques and theaters.

Speech 223A — Business and Professional Speaking (3-0) Special types and techniques of speeches most common to business and professional people; theory and practice in business speech situations, personal conferences, oral reports, sales talks and occasional speeches.

Surveying

Surveying 113 — Introduction to Surveying (3-0) Definition of surveying; brief history and importance; theory of measurements to include significant figures, rounding off numbers, mistakes and error in surveying; theory of the compass and magnetic declination; bearings and azimuths; basic methods of computation to include logarithms and slide rule; and familiarization with the basic surveying instruments: steel tape, engineer's level, and transit. Must be taken concurrently with Surveying 113A.

Surveying 113A — Surveying Measurements Practice (2-5) Use and care of the tape, level, and transit in the field; elementary field exercises of pacing, chaining, leveling, and turning angles; sighting and signaling; compass directions and magnetic variations; vernier readings and settings; engineering lettering; and the proper procedures of obtaining and tabulating field data. Must be taken concurrently with Surveying 113.

Surveying 123 — Land Surveying (3-0) Brief land history of Texas and the disposition of its public domain; surveys of the public lands of the United States; methods of computation to include use of trigonometry and the electric rotary calculator; and calculations of land areas by several methods, including coordinates and the "double meridian distance" method. Must be taken concurrently with Surveying 123A.

Surveying 123A — Land Surveying Practice (2-5) Field exercises in traversing, the running of random lines, and the retracements of land areas; referencing points and identifying monuments; taking field notes and calculating land areas; and interpreting land descriptions and the writing of land descriptions. Must be taken concurrently with Surveying 123.

Surveying 213 — Topographic Surveying and Mapping (3-0) Definition and uses of the plane table and associated methods to include traversing, radiation, intersection, and resection; contouring and mapping; basic field astronomy; determination of meridian; map projections; and the Texas Coordinate System. Must be taken concurrently with Surveying 213A.

Surveying 213A — Field Mapping Practice (2-5) The actual accomplishment of planimetric and topographic maps in the field; a brief consideration of dendrology and photogrammetry; and the requirements of subdivisions and the platting and filing of same. Must be taken concurrently with Surveying 213.

Surveying 223 — Route Surveying (3-0) Transportation systems to include office plans and field and aerial requirements for same; computations of horizontal circular curves and vertical parabolic curves; grades and cross-sections; plan-profile sheets; and earthwork estimates. Must be taken concurrently with Surveying 223A.

Surveying 223A — Route Surveying Practice (1-4) Field exercises to include the reconnaissance survey, preliminary survey, and location survey; centerline traverse and profile levels; right angle locations and cross-section construction stake setting; staking horizontal curves; and calculating cuts and fills and earthwork. Must be taken concurrently with Surveying 223.

Surveying 223B — Legal Principles of Boundary Location (3-0) How the law of surveying and boundaries developed in the United States; systems used to describe land; ownership and locating written title boundaries; transfer of real property; locating sequence conveyances and simultaneous conveyances; legal principles of retracement under federal rules; locating reversion rights; riparian and littoral rights; the surveyor in court; and writing land descriptions.

Technical Illustration

Technical Illustration 113 — Basic Photography (2-4) A course designed to cover the basic requirements of photography. Including use of camera, film development, and print making. Laboratory fee: \$6.50.

Technical Illustration 113A — Basic Design (2-4) A course designed to acquaint the student with the fundamentals of line, light shade, and color used in advertising psychology of layout and design.

Technical Illustration 123 — Advanced Photography (2-4) A continuation of Photography 113 with the main course objectives to include the study of representation, form, expression, esthetic values, and photo composition. A prerequisite of Photography 113 or a basic knowledge of photography. Laboratory fee: \$6.50.

Technical Illustration 123A — Advanced Design (2-4) A course of advanced problems in originating and rendering creative design. Exploration of design potentials through color and three dimensional projects.

Technical Illustration 213 — Commercial Photography (2-4) Organized specialized learning experiences which include theory, laboratory, and studio work as each relates to all phases of camera uses and photographic processing. Instruction includes composition and methods of photographing products for advertising display in all medias. Laboratory fee: \$6.50.

Technical Illustration 213B — Product Illustration (2-4) Illustration and drawing techniques in advertising of products on the printed page with organized subject matter and experiences concerned with the application of knowledge of commercial art to the illustration of commercial products for the esthetic effects and styling consistent with utilization value of such products.

Technical Illustration 223 — Studio Photography (2-4) Advanced use of lighting and composition of studio portraiture and photography. Laboratory fee: \$6.50.

Technical Illustration 223B — Fashion Design (2-4) Basic concepts and techniques of fashion art for advertising emphasis on rendering apparel-figure relationships.

THE TECHNICAL AND INDUSTRIAL DEPARTMENT PROGRAMS

Tyler Junior College technical courses are pre-employment training courses which fit the student into the technical, trade and industrial world.

The program is divided into Technical Institute courses, and Trade Extension classes.

Day Courses. Courses offered in the day division, technical in nature, are on the college level and are operated on the semester hour plan. These courses are one or two years in length and are divided into semesters. Upon completion of appropriate units, the student is given credit in terms of semester hours.

Admission to day technological courses is based upon graduation from an accredited high school or upon satisfactory completion of an entrance examination.

Trade Extension Classes. Tyler Junior College, in cooperation with the Texas Education Agency, offers "trade extension" classes. Instruction is given to trade and industrial workers in courses that are designed to teach the workers more about their jobs, and thereby increase their productivity and assure more opportunities for advancement.

All workers are eligible for trade extension classes who are over sixteen years of age and who are employed in those trades or industrial pursuit for which supplementary instruction can be given.

Tuition. Technical Department Tuition.

Tyler Junior College District Residents, \$75.00 per semester for a whole or part of a program.

Texas non-district residents, \$105.00 per semester for a whole or part of a program.

Non-residents of Texas. A change in the non-resident tuition was in process of adoption by the Texas State Legislature at the time of catalogue printing.

The Electronic Data Processing Program has a \$15.00 per semester rental fee in addition to the tuition.

The Dental Hygiene Program has a \$40.00 per semester rental fee in addition to the tuition.

Air Conditioning and Refrigeration

The curriculum is designed to prepare the student to assist in planning, installing, operating and maintaining air conditioning equipment. The required technical information is presented and related skills are developed which will enable the graduate to function efficiently when working with engineers, system designers, skilled craftsmen, salesmen, and others in the field.

AIR CONDITIONING AND REFRIGERATION CURRICULUM

First Year — First Semester

English 113 — Composition and Rhetoric
Mathematics 113* — College Algebra
Air Conditioning 113B — Blueprint Reading
Air Conditioning 114A — Fundamentals of Refrigeration
Air Conditioning 113D — Fundamentals of Electricity
Psychology 111
Physical Education 111

First Year — Second Semester

English 223B — Technical Report Writing
Mathematics 113B* — Trigonometry
Air Conditioning 124A — Refrigeration Machines
Air Conditioning 123D — Automatic Controls
Elective
Physical Education 121

Second Year — First Semester

Government 213 — American Government
Physics 113 — Elementary Physics
Air Conditioning 213 — Commercial Refrigeration Systems
Air Conditioning 213A — Heating
Business Administration 113B — Introduction to Business

Second Year — Second Semester

Government 223 — National and State Government
Business Administration 213L — Business Law
Air Conditioning 223 — Air Conditioning Principles
Air Conditioning 223A — Related Problems - Systems
Design
Elective

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

Dental Hygiene

This program provides a two-year course of theoretical and professional training at the college level, leading to the degree of Associate-in-Science in Dental Hygiene and to the State and National Board examinations for registry.

The student engages in occupational training to perform ancillary clinical services contributing to the maintenance of good oral health. Skills are developed to provide the dentist with the aid which will allow him more time for the treatment of patients. The student will develop a sense of personal responsibility to the dental profession and society.

DENTAL HYGIENE CURRICULUM

First Year — First Semester

English 113 — Composition and Rhetoric
Biology 113B — Anatomy and Physiology
Chemistry 113 — Introduction to Chemistry
Dental Hygiene 113A — Oral Hygiene
Dental Hygiene 113 — Oral Anatomy and Physiology
Dental Hygiene 113B — Dental Specialties
Psychology 111 — Freshman Orientation
Physical Education 111A — Physical Training for College Women

First Year — Second Semester

English 123 — Composition and Rhetoric
Chemistry 123 — Introduction to Chemistry
Biology 123B — Anatomy and Physiology
Dental Hygiene 122 — Radiology Theory
Dental Hygiene 124 — Dental Hygiene Technique & Clinic
Dental Hygiene 123 — General & Oral Histology
Home Economics 123C — Nutrition
Physical Education 121A — Physical Training for College Women

Second Year — First Semester

Biology 114A — Microbiology
Dental Hygiene 211D — Dental Materials
Dental Hygiene 213 — General and Oral Pathology
Dental Hygiene 212 — Periodontia
Dental Hygiene 214 — Dental Hygiene Clinical Practice I
Dental Hygiene 211A — Personal and General Community Health
Dental Hygiene 211B — Pharmacology
Dental Hygiene 211C — Children's Dentistry

Second Year — Second Semester

Government 223 — National and State Government
Sociology 213 — Introduction to Sociology
Psychology 213 — Introduction to Psychology
Speech 113A — Fundamentals of Speech
Dental Hygiene 222A — Dental Health Education
Dental Hygiene 222B — Ethics and Jurisprudence, Office
Management
Dental Hygiene 224 — Dental Hygiene Clinic II

Drafting Technology

The curriculum in Drafting is designed to qualify the student for professional work in the many areas of drafting. Upon completion of the required two-year plan, he receives an Associate-in-Applied Engineering Degree.

DRAFTING CURRICULUM**First Year — First Semester**

Drafting 113A — Engineering Drawing
Drafting 113B — Freehand Drawing
English 113 — Composition and Rhetoric
Mathematics 113E — Applied Mathematics I *
History 213 — History of the United States
Psychology 111
Physical Education 111

First Year — Second Semester

Drafting 213D — Descriptive Geometry
Drafting 123B — Mechanical Drawing
English 223B — Technical Report Writing
Mathematics 123E — Applied Mathematics II *
History 223 — History of the United States
Physical Education 121

Second Year — First Semester

Drafting 213A — Machine Drawing
Drafting 123A — Architectural Drawing
Government 213 — American Government
Mathematics 113B — Trigonometry *
Physics 113 — Elementary Physics

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

Second Year — Second Semester

Drafting 223B — Map Drafting
Drafting 223C — Plane Surveying
Government 223 — American Government
Speech 223A — Business and Professional Speaking
Electronics 113 — Basic Electronics

Electronic Data Processing

The College offers one and two year data processing programs.

The nine months program fits the student to qualify for employment in the field of automatic data processing. The curriculum centers around the operation and control of data processing machines, including control panel wiring and programming of machines other than the electronic digital computer.

A certificate of proficiency is granted upon successful completion of the course.

The two year program leads to the Associate-in-Business Administration and emphasizes mastery of the electronic digital computer.

A \$15.00 per semester rental fee is charged in this program.

ASSOCIATE IN BUSINESS ADMINISTRATION PLAN

First Year — First Semester

English 113 — Composition and Rhetoric
Business Administration 113B — Introduction to Business
Business Administration 113A — Accounting
Electronic Data Processing 113B —
Elementary Programming
Electronic Data Processing 113A —
Introduction to Computer
Physical Education 111 — Physical Training
Psychology 111

First Year — Second Semester

- English 223B — Technical Report Writing
Mathematics 113 — College Algebra or Business Administration 113D — Business Mathematics
Electronic Data Processing 123A —
Intermediate Programming
Electronic Data Processing 123B —
Computer Operating Systems
Electronic Data Processing 123C —
Management Computer Use
Business Administration 123A — Accounting
Physical Education 121

Second Year — First Semester

- Electronic Data Processing 213A —
Advanced Programming
Electronic Data Processing 213B —
Systems and Procedures I
Electronic Data Processing 213C —
Computer Language I
History 213 — American History
Government 213 — American Government
Speech 223A — Business and Professional Speaking

Second Year — Second Semester

- Electronic Data Processing 223A —
Systems Programming
Electronic Data Processing 223B —
Systems and Procedures II
Electronic Data Processing 223C —
Computer Language II
History 223 — American History
Government 223 — National and State Government
Mathematics 223S — Business Statistics

Electronics Technology

The Electronics program, completed in two college years, prepares the student for entry into the Electronics Industry as a specialist technician, or as an Engineer Assistant, to work in the field of research and development, or to service and maintain communication equipment. He is qualified to do calibration and adjustment of automatic control equipment.

ASSOCIATE IN ELECTRONICS CURRICULUM**First Year — First Semester**

Electronics 113 — DC and AC Theory and Circuits
Electronics 113L — Basic Electricity Laboratory
Electronics 113M — Elementary Circuit Analysis
English 113 — Composition and Rhetoric
Mathematics 113E — Applied Mathematics I *
History 213 — History of the United States

First Year — Second Semester

Electronics 113A — Power Distribution
Electronics 123 — Industrial Electronics
Electronics 123L — Basic Electronics Laboratory
Electronics 123M — Advanced Circuit Analysis
English 223B — Technical Report Writing
History 223 — History of the United States

Second Year — First Semester

Electronics 213A — Digital Computer Fundamentals
Electronics 213B — Semi-Conductors I
Electronics 213C — Semi-Conductors Laboratory I
Engineering 112 — Engineering Drawing
Physics 113 — Elementary Physics
Government 213 — American Government

Second Year — Second Semester

Electronics 223 — Industrial Instrumentation Fundamentals
Electronics 223B — Semi-Conductor II
Electronics 223C — Semi-Conductor Laboratory II
Mathematics 113B — Trigonometry *
Speech 223A — Business and Professional Speaking
Government 223 — National and State Government

Electronic Cooperative students will complete Electronics 123D, 123B, 123C, and 123E during Summer Semesters.

Law Enforcement Technology

This course provides a survey of police problems, crime trends and statistics, organization and jurisdiction of local, state and federal enforcement agencies. Surveys of professional opportunities and personal qualifications are studied. The course is a basic orientation designed to provide the student with a composite evaluation of the European and American police systems. The student is introduced to a general history of police

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

systems which serves as a frame of reference in analyzing trends in the modern police service.

LAW ENFORCEMENT CURRICULUM

First Year — First Semester

English 113 — Composition and Rhetoric
History 213 — History of the United States
Law Enforcement 113 — Introduction to Law Enforcement
Law Enforcement 113A — Police Administration
Psychology 111 — Freshman Orientation
Physical Education 111 — Physical Training
Elective — 3 hour course

First Year — Second Semester

History 223 — History of the United States
English 223B — Technical Report Writing
or
English 123 — Composition and Rhetoric
Speech 223A — Business and Professional Speaking
Law Enforcement 123 — Juvenile Procedures
Law Enforcement 123A — Patrol Operation
Physical Education 121 — Physical Training

Second Year — First Semester

Psychology 213 — Introduction to Psychology
Government 213 — American Government
Sociology 213 — Introduction to Sociology
Law Enforcement 213 — Criminal Law
Law Enforcement 213A — Criminal Investigation

Second Year — Second Semester

Government 223 — American Government
Sociology 223 — Social Problems
Law Enforcement 223 — Traffic Management and Planning
Law Enforcement 223A — Criminal Evidence and Court
Procedure
Elective — 3 hour course

Mid-Management

The Mid-Management program is a cooperative work-study program which leads to an Associate Degree in Mid-Management. The Mid-Management curriculum is an accelerated program designed to give selected students the advanced management course needed for managerial skills. Its purpose is to provide a practical, comprehensive program covering the full spectrum of management activity. The program is designed to meet both the requirements of young people preparing for careers in business management as well as men and women

who are already actively engaged in business and industry. Structured to provide functional management theory that can be applied immediately to the job, the Mid-Management program supports the theory that there is no substitute for experience in the learning process.

Concurrent with the academic Mid-Management courses, the Mid-Management major is required to take a course called Management Internship. One of the requirements of the management internship course is that a student must work a minimum of 20 hours per week at a training station provided or approved by a Mid-Management coordinator.

MID-MANAGEMENT CURRICULUM

First Year — First Semester

English 113 — Composition and Rhetoric
Business Administration 113D — Business Mathematics
Business Administration 113B — Introduction to Business
Mid-Management 113 — Salesmanship
Mid-Management 113A — Internship *
Physical Education 111 — Physical Training
Psychology 111 — Freshman Orientation

First Year — Second Semester

Speech 223A — Business and Professional Speaking
Business Administration 213F — Business and Industrial
Psychology
Business Administration 113C — Business Correspondence
Mid-Management 123 — Principles of Marketing
Mid-Management 123A — Internship *
Physical Education 121 — Physical Training

Second Year — First Semester

Government 213 — American Government
Business Administration 214 — Principles of Accounting
Mid-Management 213B — Personnel Management
Mid-Management 213 — Advertising and Sales Promotion
Mid-Management 213A — Internship *

Second Year — Second Semester

Government 223 — National and State Government
Business Administration 224 — Principles of Accounting
Economics 223 — Economic Problems
Mid-Management 223 — Retail Merchandising
Mid-Management 223A — Internship *

* Mid-Management Internship includes twenty hours of supervised work experience each week, with a related one-hour weekly seminar. Students are limited to only one Internship course per semester.

Petroleum Technology

Petroleum Technology. The petroleum technology curriculum is established with the advice and co-operation of employers and workers in the oil fields to provide preliminary training for workers in various aspects of petroleum development and production. The oil industry requires employees with training in locating, drilling and maintaining wells, and in handling and refining petroleum products.

While scientific background and related information is included in the technology course, major emphasis is upon operation in the oil field, with opportunity for field trips and for employment.

Petroleum technology majors have available training in four broad areas: exploration, development, marketing, and construction and maintenance. The two-year program listed below is the pattern suggested for students who plan to enter the petroleum industry in the field of exploration and development.

PETROLEUM TECHNOLOGY CURRICULUM

First Year — First Semester

Petroleum Technology 113 — Petroleum Development
Petroleum Technology 112A — Rotary Drilling Fluids
Petroleum Technology 112B — Drilling Equipment Field Lab
English 113 — Composition and Rhetoric
Mathematics 113E — Applied Mathematics I *
History 213 — History of the United States
Psychology 111
Physical Education 111

First Year — Second Semester

Petroleum Technology 121 — Oil Field Records
Petroleum Technology 123 — Production Methods
Drafting 111 — Blueprint Reading
Petroleum Technology 122A — Production Equipment Field Lab
English 223B — Technical Report Writing
Mathematics 123E — Applied Mathematics II *
History 223 — History of the United States
Physical Education 121

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

Second Year — First Semester

Petroleum Technology 213 — Introduction to Petroleum Industry

Petroleum Technology 212A — Well Logging Methods

Petroleum Technology 213A — Petroleum Laboratory Methods

Mathematics 113B — Trigonometry *

Electronics 113 — Basic Electronics

Government 213 — American Government

Second Year — Second Semester

Petroleum Technology 222 — Geophysical Methods

Petroleum Technology 222B — Planetable Surveying for Geophysics

Petroleum Technology 222A — Natural Gas Production

Petroleum Technology 222C — Hydraulics for Petroleum Technologists

Physics 113 — Elementary Physics

Drafting 223B — Map Drafting

Government 223 — American Government

Surveying

Surveying at Tyler Junior College was initiated at the request of Land Surveyors in the East Texas area. The courses offered are designed to teach the student the basic elements of surveying theory and to afford him enough supervised practice to enable him, in two years time, to become a useful apprentice to this industry. Land Surveying as such is emphasized and includes history, dendrology, marking corners, establishing boundaries, describing land by metes and bounds, calculating land areas, and the use of the Texas Coordinate System. Other phases of surveying taught are, topographic, construction, field mapping and route surveying.

SURVEYING CURRICULUM

First Year — First Semester

Surveying 113 — Introduction to Surveying

Surveying 113A — Surveying Measurements Practice

English 113 — Composition and Rhetoric

Mathematics 113E — Applied Mathematics I *

History 213 — History of the United States

Psychology 111

Physical Education 111

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

First Year — Second Semester

Surveying 123 — Land Surveying
Surveying 123A — Land Surveying Practice
English 223B — Technical Report Writing
Mathematics 123E — Applied Mathematics II *
History 223 — History of the United States
Physical Education 121

Second Year — First Semester

Surveying 213 — Topographic Surveying and Mapping
Surveying 213A — Field Mapping Practice
Mathematics 113B — Trigonometry
Government 213 — American Government
Speech 223A — Business and Professional Speaking

Second Year — Second Semester

Surveying 223 — Route Surveying
Surveying 223A — Route Surveying Practices
Drafting 223B — Map Drafting
Government 223 — National and State Government
Surveying 223B — Legal Principles of Boundary Location

Technical Illustration

A two year post high school technical program designed to meet the needs of the student desiring to enter the field of Technical Illustration, Commercial Art or Commercial Photography. The course of study is designed to give the student a well rounded knowledge of Illustration, Commercial Art and Commercial Photography used in Advertising and Photography fields. The student should have some art ability or background.

TECHNICAL ILLUSTRATION CURRICULUM

First Year — First Semester

Technical Illustration 113 — Basic Photography
Technical Illustration 113A — Basic Design
History 213 — History of the United States
English 113 — Composition and Rhetoric
Mathematics 113* — College Algebra or Mathematics 113E
Psychology 111 — Freshman Orientation
Physical Education 111

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

First Year — Second Semester

Technical Illustration 123 — Advanced Photography
Technical Illustration 123A — Advanced Design
History 223 — History of the United States
English 223B — Technical Report Writing
Mathematics 113T* — Applied Trigonometry or Math 123E
Physical Education 121

Second Year — First Semester

Technical Illustration 213 — Commercial Photography
Elective
Technical Illustration 213B — Product Illustration
Government 213 — American Government
Speech 223A — Business and Professional Speaking

Second Year — Second Semester

Technical Illustration 223 — Studio Photography
Elective
Technical Illustration 223B — Fashion Design
Government 223 — National and State Government
Psychology 223 — Applied Psychology

* Student placement in mathematics classes is based upon the results of tests and subjects completed before admission.

DISTRIBUTIVE EDUCATION

In accordance with its stated objectives, Tyler Junior College co-operates with business and industrial concerns of the area by providing special personnel training programs. Specialized non-credit courses in Distributive Education are organized whenever there is a request by a sufficient number of persons for such a class.

The courses are taught in either the regular day session or in the Evening Division to suit the needs of the students.



